

CLASS 101, PRINTING**SECTION I - CLASS DEFINITION**

Means not otherwise provided for adapted to produce characters or designs on surfaces by impression of types or dies or by applying coating material thereto through openings of previous portions of a pattern sheet, as in stenciling, or by impression from planos:graphic or intaglio surfaces.

- (1) Note. Includes organizations using design or character dies that emboss, burn, or perforate, as well as those that are intended to apply ink.

SECTION II - LINES WITH OTHER CLASSES AND WITHIN THIS CLASS

For means and methods for making type or other bodies having printing surfaces see Class 76, Metal Tools and Implements, Making; Class 156, Adhesive Bonding and Miscellaneous Chemical Manufacture; Class 164, Metal Founding; Class 178, Telegraphy; Class 199, Type Casting; Class 204, Chemistry: Electrical and Wave Energy; Class 205, Electrolysis: Processes, Compositions Used Therein and Methods of Preparing the Compositions; Class 264, Plastic and Nonmetallic Article Shaping or Treating; Processes; Class 425, Plastic Article or Earthenware Shaping or Treating: Apparatus; and Class 430, Radiation Imagery Chemistry: Process, Composition, or Product Thereof.

Patents containing product claims originally classified in Class 101, Printing, subclasses 128.21 through 129, 450.1 through 473, 211, 295, 401.1 through 401.6 involving significant claimed chemical subject matter and no significant structure or printing steps are being reclassified into the appropriate chemical product or material class. Notes under the pertinent above indicated subclasses indicate the extent and scope of this work as of August 1969.

Where a printing plate of the planos:graphic type or a stencil element, i.e., stencils and blanks, is claimed with no significant printing plate or stencil element structure or printing steps but merely in terms of the composition or material of which at least one of its layers is composed, it will be classified in the appropriate product or composition class, even though there is no claim to the composition, per se.

The line between Class 83, Cutting, and Class 101, Printing, subclasses 3.1+ is as follows:

The mere removal of portions of sheet material interposed between one or more punch and die sets, whether or not the aperture or series of apertures produced form characters or designs which convey intelligence, has been considered punching for Class 83. However, where more than the mere removal of material is involved and additional apparatus or steps add to enhance the character or design produced, (e.g., the application of ink to the punches to additionally mark or outline the apertures), such additions have been considered printing for Class 101, subclass 3.1.

Deforming of sheet material into characters or designs with or without the removal of any portion of the material has been considered printing for Class 101, subclasses 3.1+.

SECTION III - REFERENCES TO OTHER CLASSES**SEE OR SEARCH CLASS:**

- 8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, particularly subclasses 445+, for chemical processes and compositions for printing textiles and other materials there designated with dyes.
- 53, Package Making, subclasses 131.2+ for machines to package articles combined with a device to print indicia or to place a coating on the cover thereof.
- 76, Metal Tools and Implements, Making, (see (2) Note).
- 100, Presses, appropriate subclasses for presses not otherwise provided for.
- 118, Coating Apparatus, for coating apparatus of general application, especially subclass 46 for printing apparatus combined with significant coating, subclasses 211+, 301 and 406 for apparatus for applying coating to restricted areas for special purposes, and subclasses 504+ for masks, per se.
- 156, Adhesive Bonding and Miscellaneous Chemical Manufacture, subclasses 277 and 384+ for the combination of printing and laminating.
- 164, Metal Founding, subclasses 2+ for processes of forming metal printing plates (e.g., stereotypes, etc.) and subclasses 139+ for corresponding apparatus. Also, see (2) Note above.

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| <p>177, Weighing Scales, subclasses 2+ for a recording weighing device.</p> <p>178, Telegraphy, subclasses 4 and 23+ for printing telegraph systems.</p> <p>199, Type Casting, (see Note 2).</p> <p>216, Etching a Substrate: Processes, subclass 10 for the manufacturing of a printing roll using etching.</p> <p>221, Article Dispensing, appropriate subclasses for article dispensing or feeding devices not otherwise provided for, and including sheet and card dispensers.</p> <p>226, Advancing Material of Indeterminate Length, appropriate subclasses for methods of, and apparatus for, feeding material without utilizing the leading or trailing ends to effect movement of the material.</p> <p>234, Selective Cutting (e.g., Punching), for a device for selective cutting or punching of a workpiece, usually a paper card or strip, in one cycle of operation, or step-by-step in alternation with work feed movements, wherein the cutting extends entirely through the workpiece and is not restricted to the production of characters or designs (e.g., it may reproduce pattern indicia in original or modified form, or it may cut coded perforations under the control of a keyboard or other data input means).</p> <p>235, Registers, for printing-registers, calculators, and voting machines.</p> <p>270, Sheet-Material Associating, subclasses 1.1+ for combinations of printing with operations falling in that class.</p> <p>271, Sheet Feeding or Delivering, appropriate subclasses for means for feeding separate sheets, etc.</p> <p>346, Recorders, subclasses 150.1+ for electric recording of phenomenon.</p> <p>347, Incremental Printing of Symbolic Information, subclasses 112+ for the production of latent electrostatic images by the use of electrically charged character dies onto a record, which latent images are later developed with toner to render them visible, subclasses 159+ and 163+ for printing of symbolic information by electrical discharge and by electrochemical respectively.</p> <p>380, Cryptography, subclasses 51 and 55 for production of printed copy by cryptos:graphic equipment.</p> <p>399, Electrophotography, subclasses 130+ for image formation, subclass 154 for image formation with transfer of latent image, and subclasses 297+ for transfer of toner image, per se.</p> | <p>400, Typewriting Machines, for printing mechanism in which each type is impressed separately, with means to feed the work to position for the next impression.</p> <p>427, Coating Processes, for processes of coating, per se, and note especially subclasses 256+ for a nonuniform coating.</p> <p>428, Stock Material or Miscellaneous Articles, appropriate subclasses for a single or plural layer stock material useful as a printing plate or stenciling element, but having no significant printing structure or other printing feature, and subclasses 908 and 909 (cross-reference art collections) for a printer's matrix or a printer's blanket, respectively.</p> <p>430, Radiation Imagery Chemistry: Process, Composition, or Product Thereof, see the class definition.</p> <p>902, Electronic Funds Transfer, (a cross-reference art collection), subcollections 18+ for an automated teller machine having a particular printing means.</p> |
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SUBCLASSES

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PRINTING AND SORTING:

This subclass is indented under the class definition. Machines which print on articles and selectively deliver related articles in groups, each group in a separate position.

SEE OR SEARCH THIS CLASS, SUBCLASS:

58, for comprising analogous devices, but which do not deliver to separate positions.

3.1

EMBOSSING OR PENETRATING:

This subclass is indented under the class definition. Means for producing characters or designs on surfaces by dies adapted to deform or remove portions of the material.

(1) Note. Since many printing mechanisms can inherently deform the material being printed upon, organized machines, even though called "embossing machines", are placed below in appropriate coordinate subclasses, except that recitation of specific mechanism particularly designed to deform the material, will cause classification in this and indented

- subclasses, e.g., conforming punch and die structure.
- (2) Note. See the class definition, lines with other classes and within this class for the line between this class (101) and the Cutting class.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
401.2, 401.4, 401.5, and 401.6, for means for swaging characters into metal and involving more than simple pressure, such as would be applicable to any material.
- SEE OR SEARCH CLASS:
83, Cutting, appropriate subclasses for machines having die members with perforating-points adapted to pass entirely through the material for producing designs other than characters. Also see Lines With Other Classes and Within this Class of the Class 101 Class Definition.
162, Paper Making and Fiber Liberation, appropriate subclasses for processes and apparatus for shaping wet fibrous sheets by patterned dies.
234, Selective Cutting (e.g., Punching), appropriate subclasses for a machine having a gang of separately movable punches so mounted and connected that any desired combination thereof may be depressed to produce a design or an array of coded perforations.
400, Typewriting Machines, subclasses 127+ and 135+ for machines in which each die is impressed separately, with means to feed the work to position for the next impression.
- 4 Special-article machines:**
This subclass is indented under subclass 3.1. Machines peculiarly adapted for printing by embossing or penetrating on articles other than rectangular sheets.
- SEE OR SEARCH CLASS:
81, Tools, subclass 9.21 for a stamp-scari-fying device which may include means for printing cancellation indica.
- 5 Rolling contact:**
This subclass is indented under subclass 4. Machines the impression being made by rolling contact between the printing-surface and the surface printed upon.
- 6 Rotary:**
This subclass is indented under subclass 5. Machines the article engaged between the peripheries of two oppositely-rotating members to effect the printing act.
- 7 Rotating object**
This subclass is indented under subclass 5. Machines the article rotating during impres-sion, but not between a pair of oppositely-rotat-able members.
- 8 Hot die:**
This subclass is indented under subclass 5. Machines there being means to heat the die.
- 9 Hot die:**
This subclass is indented under subclass 4. Machines there being means to heat the die.
- 10 Oscillating:**
This subclass is indented under subclass 9. Machines wherein the path of approach of the hot die and the special article to printing posi-tion is an arc intersecting the surface printed upon.
- 11 Feeding or delivering:**
This subclass is indented under subclass 9. Machines having means to feed or deliver the article.
- 12 Matrix material:**
This subclass is indented under subclass 3.1. Means for impressing material adapted to be employed as molds from which casts may be taken.
- SEE OR SEARCH CLASS:
428, Stock Material or Miscellaneous Arti-cles, appropriate subclasses for a sin-gle or plural layer stock material prod-uct, and subclasses 908 and 909 (cross-reference art collections) for a printer's matrix or a printer's blanket, respectively.

13 Selective machines:

This subclass is indented under subclass 12. Machines carrying a supply of printing characters so constructed that different characters may be employed at successive impressions.

14 Drum series:

This subclass is indented under subclass 13. Machines there being a plurality of rotatable coaxial members with characters on their peripheries.

SEE OR SEARCH CLASS:

199, Type Casting, subclass 3 comprising similar mechanism for assembling matrices.

15 Multiple-character bar:

This subclass is indented under subclass 13. Machines, the carriers being flat and slidable and each bearing a plurality of characters.

SEE OR SEARCH CLASS:

199, Type Casting, subclass 6 comprising similar mechanism for assembling matrices.

16 Die members:

This subclass is indented under subclass 12. Machines limited to the dies or the holders therefor.

17 Processes:

This subclass is indented under subclass 12. Processes only of embossing or penetrating matrix material.

18 Selective machines:

This subclass is indented under subclass 3.1. Machines carrying a supply of printing characters so constructed that different characters may be employed at successive impressions.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

13+, for similar machines for operating on a matrix material.

SEE OR SEARCH CLASS:

234, Selective Cutting (e.g., Punching), for analogous structure in a selective cutting machine.

19**Piercing:**

This subclass is indented under subclass 18. Machines, the dies being adapted to penetrate the material.

- (1) Note. This subclass is at present the locus for original patents directed to the combination of means for printing and means for punching, selectively, one or more holes (in the same or in a different workpiece). For example, the machine may punch code symbols to record data which may or may not relate to the printed subject matter.

SEE OR SEARCH CLASS:

234, Selective Cutting (e.g., Punching), subclasses 35+ for a selective cutting device associated with a disclosure of printing means.

400, Typewriting Machines, subclasses 135+ for the combination of means for typing and means for perforating (the same workpiece or different workpieces), under the control of a common keyboard.

20**Oscillating:**

This subclass is indented under subclass 19. Machines wherein the path of approach to printing position is in an arc intersecting the surface to be pierced.

21**Hot die:**

This subclass is indented under subclass 18. Machines, there being means to heat the die.

22**Rolling-contact machines:**

This subclass is indented under subclass 3.1. Means, the impression being made by rolling contact between the printing-surface and the surface to be printed upon.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

5+, for machines for embossing special articles.

SEE OR SEARCH CLASS:

100, Presses, subclasses 155+ for concurrent conveying and pressing presses of the roller type, not elsewhere provided for.

- 23 Rotary:**
This subclass is indented under subclass 22. Means, the work being engaged between the peripheries of two oppositely-rotating members.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
6, for similar special article machines.
- 24 Piercing:**
This subclass is indented under subclass 23. Means, the die being adapted to penetrate the material.
- 25 Hot die:**
This subclass is indented under subclass 23. Means, there being means to heat the die.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
8, for other rolling contact, hot die machines.
- 26 Piercing machines:**
This subclass is indented under subclass 3.1. Means in which the die is adapted to penetrate the material.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
19, 20, and 24, for piercing means.
- SEE OR SEARCH CLASS:
81, Tools, subclass 9.22 for a hand-manipulated device including driven means to perforate a surface and means to introduce ink into the perforations.
- 27 Hot die machines:**
This subclass is indented under subclass 3.1. Machines having means to heat the die.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
8, 9, 21, and 25, for other hot die machines.
- SEE OR SEARCH CLASS:
100, Presses, subclasses 300+ for presses not elsewhere provided for, and having means for heating, cooling or drying material in the press.
- 28 Die members:**
This subclass is indented under subclass 3.1. Limited to the dies or the holders therefor for machines.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
16, and 368+, for other dies.
- 29 Selective:**
This subclass is indented under subclass 28. Dies carrying a supply of printing characters so constructed that different characters may be employed at successive impressions.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
13+, and 18+, for machines having selective members.
- 30 Piercing:**
This subclass is indented under subclass 28. Means, the die being adapted to penetrate the material.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
19+, 24, and 26, for machines having piercing members.
- 31 Hot:**
This subclass is indented under subclass 28. Means, the die being peculiarly adapted to be heated.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
8, 9+, 21, 25, and 27, for machines having hot dies.
- SEE OR SEARCH CLASS:
126, Stoves and Furnaces, subclasses 401+ for a tool comprising a work engager and fuel burner.
219, Electric Heating, subclasses 243+ for die members having specific electrical heating means.

- 31.1 Seal press:**
This subclass is indented under subclass 3.1. Means particularly adapted to deform material into the shape of a seal or crest.
- 32 Processes:**
This subclass is indented under subclass 3.1. Processes only for embossing or penetrating.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
17, for processes of embossing or penetrating matrix material.
- 33 TRANSFERRING PREPARATORY DESIGNS:**
This subclass is indented under the class definition. Means for transferring designs of special compositions from temporary supports to plates adapted to be developed into printing-surfaces.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
137, 142+, 154, 177, 217+, and 251+, for other transfer machines.
- 34 Processes:**
This subclass is indented under subclass 33. Processes only for transferring preparatory designs.
- SEE OR SEARCH CLASS:
8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, subclasses 467+ for processes of dyeing by transfer.
156, Adhesive Bonding and Miscellaneous Chemical Manufacture, subclasses 230+ for processes for directly transferring a lamina from a carrier to a base.
427, Coating Processes, subclasses 256+ for processes of forming a nonuniform coating and subclasses 146+ for processes of making a transfer or copy sheet.
- 35 SPECIAL ARTICLE MACHINES:**
This subclass is indented under the class definition. Machines peculiarly adapted for printing on articles other than rectangular sheets.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
4+, and 33, for other special article machines.
114+, for stenciling machines for operating on special articles.
- SEE OR SEARCH CLASS:
53, Package Making, subclass 131.2 for machines to form packages combined with a device to print indicia or to place a coating on the cover thereof.
131, Tobacco, subclass 284 for cigar and cigarette making machines with combined means for printing on the article.
- 36 Rotary:**
This subclass is indented under subclass 35. Machines, the article being engaged in rolling contact between the peripheries of two oppositely-rotating members.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
6, for similar embossing or penetrating machines.
- 37 Feeding or delivering:**
This subclass is indented under subclass 36. Machines comprising means to move the articles to or from the printing mechanism.
- 38.1 Rotating object:**
This subclass is indented under subclass 35. Machines, the article rotating during impression, but not between a pair of oppositely-rotatable members.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
7, for similar embossing or penetrating machines.
- 39 Traveling:**
This subclass is indented under subclass 38.1. Machines, the article being given a bodily movement also during the printing operation.
- 40 Feeding or delivering:**
This subclass is indented under subclass 39. Machines comprising means to move the article to or from the printing mechanism.

- 40.1 Feeding or delivering:**
This subclass is indented under subclass 38.1. Machines comprising means to move the article to or from the printing mechanism.
- 41 Bed and platen:**
This subclass is indented under subclass 35. Machines wherein the impression is made without rolling contact.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
4, and appropriate subclasses thereunder, and subclasses 57+, 68-70, 78+, 93+, 134.5, 163+, 193+, and 287+ for other bed and platen machines.
- 42 Selective:**
This subclass is indented under subclass 41. Machines carrying a supply of printing characters so constructed that different characters may be employed at successive impressions.
- 43 Feeding or delivering:**
This subclass is indented under subclass 42. Machines comprising means to move the articles to or from the printing mechanism.
- 44 Feeding or delivering:**
This subclass is indented under subclass 41. Machines, there being means to move the articles to or from the printing mechanism.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
43, for selective machines having such means.
- 45 SELECTIVE OR PROGRESSIVE:**
This subclass is indented under the class definition. Means carrying a supply of printing characters so constructed that different characters may be employed at successive impressions.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
13+, 18+, 29, and 42+, for other selective machines.
- 46 Typewriter feature:**
This subclass is indented under subclass 45. Means for impressing each type separately and causing relative feed of the work to position for the next impression, in combination with other printing means.
- SEE OR SEARCH CLASS:
400, Typewriting Machines, for such machines, per se.
- 47 Addressing machines:**
This subclass is indented under subclass 45. Machines peculiarly adapted for printing addresses, with or without other printed matter.
- 48 Stencil:**
This subclass is indented under subclass 47. Machines employing members having design areas through which ink may pass.
- 49 Rotary machines with roller inker and fountain:**
This subclass is indented under subclass 48. Machines, the work being engaged in rolling contact between the peripheries of rotating members, the surface on one of the members being a stencil and having a roller-inker receiving ink from a reservoir.
- 50 Stencil web:**
This subclass is indented under subclass 48. Machines having stencils in strip form, which strip may be composed of separate sections.
- 51 Traveling roller inker with fountain:**
This subclass is indented under subclass 48. Machines wherein a roller supplied with ink from a reservoir is passed bodily over the back of the stencil.
- 52 Rotary:**
This subclass is indented under subclass 47. Machines, the work being engaged in rolling contact between the peripheries of rotating members.
- 53 Feeding or delivering:**
This subclass is indented under subclass 52. Machines having means to move the work to or from the printing mechanism.
- 54 Plate chain feed:**
This subclass is indented under subclass 53. Machines, there being a chain for passing disconnected printing-plates between the members of the printing-couple.

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| <p>55 Bed-and-cylinder:
This subclass is indented under subclass 47. Machines having a flat printing member and a cylinder between which the work is engaged by rolling contact.</p> <p>56 Traveling cylinder:
This subclass is indented under subclass 55. Machines, the cylinder being given a bodily movement along the bed.</p> <p>57 Bed and platen:
This subclass is indented under subclass 47. Machines wherein the impression is made without rolling contact.</p> <p>(1) Note. See the search note under subclass 41 of the class.</p> <p>58 Article grouper:
This subclass is indented under subclass 57. Machines having means for distinguishing different groups of the printed articles, but not for delivering the groups to different positions.</p> <p>SEE OR SEARCH THIS CLASS, SUB-CLASS:
2, for analogous devices, but which deliver the groups to different positions.</p> <p>59 Drum series:
This subclass is indented under subclass 57. Machines, there being a plurality of rotatable coaxial members provided with printing characters on their peripheries.</p> <p>60 Interconnected plates:
This subclass is indented under subclass 57. Machines, a plurality of printing-plates being secured together and fed one at a time to printing position.</p> <p>SEE OR SEARCH THIS CLASS, SUB-CLASS:
50, and 121, for stencil web machines.</p> <p>61 Oscillating machines:
This subclass is indented under subclass 60. Machines wherein the path of approach of the bed and platen to printing position is an arc intersecting the surface to be printed upon.</p> | <p>62 Rotary plate carrier:
This subclass is indented under subclass 57. Machines, a plurality of printing-surfaces being mounted on a rotary carrier and moved step by step to operative position.</p> <p>63 Shifting chase:
This subclass is indented under subclass 57. Machines, a plurality of printing-surfaces being placed in a chase and the chase shifted step by step.</p> <p>64 Oscillating machine:
This subclass is indented under subclass 63. Machines wherein the path of approach of the bed and platen is an arc intersecting the surface to be printed upon.</p> <p>65 Oscillating:
This subclass is indented under subclass 57. Machines wherein the path of approach of the bed and platen is an arc intersecting the surface to be printed upon.</p> <p>66 Ticket machines:
This subclass is indented under subclass 45. Machines for printing on transportation-tickets route or destination, in combination with other data, employing at least in part selective or progressive mechanism.</p> <p>67 Duplicating:
This subclass is indented under subclass 66. Machines having means to produce a plurality of copies of the same matter at each printing operation.</p> <p>68 Bed and platen:
This subclass is indented under subclass 67. Machines wherein the impression is made by a nonrolling contact.</p> <p>(1) Note. See the search note under subclass 41 of this class.</p> <p>69 Bed and platen:
This subclass is indented under subclass 66. Machines wherein the impression is made by a nonrolling contact.</p> <p>SEE OR SEARCH THIS CLASS, SUB-CLASS:
68, for duplicating types of machines.</p> |
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- 70 Numbering attachment:**
This subclass is indented under subclass 69. Machines, there being means for printing numbers progressively.
- 71 Mail-box machines:**
This subclass is indented under subclass 45. Machines for canceling mail-matter that are inclosed in a receptacle for storing the canceled matter.
- 72 Numbering:**
This subclass is indented under subclass 45. Machines for printing numbers that are provided with means for advancing the type progressively between operations.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
70, for ticket machines having a numbering attachment.
- 73 Measuring machines:**
This subclass is indented under subclass 72. Machines adapted for printing at predetermined distances upon the work.
- 74 Rotary:**
This subclass is indented under subclass 73. Machines, the work being engaged in rolling contact between the peripheries of rotating members.
- 75 Drum series:**
This subclass is indented under subclass 74. Machines, there being a plurality of rotatable coaxial members with printing characters on their peripheries.
- 76 Rotary machines:**
This subclass is indented under subclass 72. Machines, the work being engaged in rolling contact between the peripheries of rotating members.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
74, for rotary measuring machines.
- 77 Planetary drum series:**
This subclass is indented under subclass 76. Machines, there being a plurality of rotatable coaxial members with printing characters on their peripheries, the series being revoluble bodily about an exterior axis.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
75, for measuring machines of the drum series type.
- 78 Bed-and-platen machines:**
This subclass is indented under subclass 72. Machines in which the impression is made without rolling contact.
- (1) Note. See the search note under subclass 41 of this class.
- 79 Drum series:**
This subclass is indented under subclass 78. Machines, there being a plurality of rotatable coaxial members with printing characters on their peripheries.
- 80 Oscillating machines:**
This subclass is indented under subclass 79. Machines wherein the path of approach of bed and platen to printing position is an arc intersecting the surface to be printed on.
- 81 Roller and plate inker:**
This subclass is indented under subclass 80. Machines, there being an ink-supply plate and a roller for transferring ink therefrom to the printing-surface.
- 82 Roller and plate inker:**
This subclass is indented under subclass 79. Machines, there being an ink-supply plate and a roller for transferring ink therefrom to the printing-surface.
- 83 Drum series and pad inkers:**
This subclass is indented under subclass 72. Machines limited to a plurality of rotatable coaxial members with printing characters on their peripheries in combination with ink-pads making contact with the type along a path intersecting the type-surface.
- 84 Printing members:**
This subclass is indented under subclass 72. Limited to printing-surfaces and supporting and holding therefor for machines.

- 85 Drum series:**
This subclass is indented under subclass 84. Printing members comprising a plurality of rotatable coaxial members with printing characters on their peripheries.
- 86 Planetary:**
This subclass is indented under subclass 85. Printing members, the series being revoluble bodily about an exterior axis.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
77, for rotary numbering machines having planetary drum series.
- 87 Adjustable:**
This subclass is indented under subclass 86. Printing members, the series being shiftable on its support.
- 88 Contact actuated:**
This subclass is indented under subclass 85. Printing members, the drums being progressed by pressure from the work-support.
- 89 Yielding drums:**
This subclass is indented under subclass 88. Printing members, the drums withdrawing slightly under pressure and effecting the progression of the types upon their return to normal position.
- 90 Duplicating machines:**
This subclass is indented under subclass 45. Machines having means to produce a plurality of copies of the same matter at each printing operation.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
67+, for duplicating ticket machines.
- 91 Rotary machines:**
This subclass is indented under subclass 45. Machines in which the work is engaged in rolling contact between the peripheries of rotating members.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
49, 52+, 74+, and 76+, for other rotary selective or progressive machines.
- 92 Web:**
This subclass is indented under subclass 91. Machines for printing on continuous strips of indefinite length.
- 93 Bed and platen machines:**
This subclass is indented under subclass 45. Machines in which the impression is made without rolling contact.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
13+, 18+, 42+, and see the search note under subclass 41 of this class for other bed and platen machines.
- 93.01 Methods:**
This subclass is indented under subclass 93. Processes of printing.
- 93.02 With means to prevent double impressions (rebound preventers)**
This subclass is indented under subclass 93. Apparatus in which there is provided means to prevent a repeated and unwanted print impression of a print character.
- (1) Note. Merely dampening the movement of a print hammer returning to its home position after a print operation is not considered proper subject matter for classification here. For classification here, there should at least be a disclosure that a repeated impact of the same print character is at least substantially positively prohibited whereby the probability of a repeated or double impression is highly remote.
- 93.03 With means to vary intensity of print impression:**
This subclass is indented under subclass 93. Apparatus in which means is provided whereby the force used in the act of printing may be adjusted.
- 93.04 Segmented print character printers (e.g., dots, etc.)**
This subclass is indented under subclass 93. Apparatus provided with print means for producing print characters each of which is made up of a plurality of character fragments.

93.05 Wire:

This subclass is indented under subclass 93.04. Apparatus in which there is provided a plurality of flexible relatively movable elongated members, end portions thereof or separate members at the end portions cooperating therewith striking a relatively stationary member to perform a print action, each end portion or separate member thereat printing a respective portion only of a character or symbol.

93.06 With justifying:

This subclass is indented under subclass 93. Apparatus in which means is provided by which space between words or print characters may be modified so that a printed line of print will have a desired length.

93.07 Printing and perforating or severing:

This subclass is indented under subclass 93. Apparatus in which the print apparatus includes a means for severing and/or piercing the article being printed.

- (1) Note. The means may be a bar having a tear edge thereon.

93.08 Simultaneous plural line printing:

This subclass is indented under subclass 93. Apparatus in which a separate relatively moving print means is provided for concurrent printing on each of two or more print lines of a record medium moving therepast.

- (1) Note. It is not intended that a print character carrying member having two or more lines of print thereon engageable by a relatively movable platen member for effecting a print action is proper for classification here. However, where a separate hammer or platen member concurrently movable for simultaneously printing indicia on each of two or more print lines, classification is proper here.

93.09 Hammer individually strikes print characters in adjacent print columns (e.g., sharing)

This subclass is indented under subclass 93. Apparatus in which there is provided a character striking member either (1) having a width spanning a plurality of adjacently positioned type characters or type columns, or (2) being movable to strike characters in a plurality of

print columns, the character striking member being engageable with a single print type character only when it is urged to strike the print character carrying member at a print line as the print characters move therepast.

93.1 Fluid actuated or controlled print means:

This subclass is indented under subclass 93. Apparatus wherein either a platen or hammer member or a print character carrying member is moved by a fluid under pressure whereby a print act may be performed.

93.11 Plural separate print mechanisms:

This subclass is indented under subclass 93. Apparatus in which there are two or more printing means each of which comprises a separate print character carrying member for cooperation with a separate platen for printing on a separate record keeping means.

93.12 Unlike:

This subclass is indented under subclass 93.11. Apparatus in which at least one of the separate printing means comprises a printing mechanism dissimilar to any other printing mechanism in the machine.

93.13 With movable endless print carrying belt:

This subclass is indented under subclass 93. Apparatus in which print characters are carried on a band or web-like element the ends of which are connected together to form a continuous loop and movable past or along a print line.

93.14 Moving along print line:

This subclass is indented under subclass 93.13. Apparatus wherein the band or web-like element has a portion moving in a direction parallel to the print line.

93.15 Print or hammer unit moves along print line:

This subclass is indented under subclass 93. Apparatus wherein either a character carrying member or a character striking member is moved from print position to print position along a line generally parallel to a print line and from end to end thereof.

- 93.16 Hammer unit moves along print line:**
This subclass is indented under subclass 93.15. Apparatus wherein the character striking member is moved parallel to the print line.
- 93.17 Rotatable print unit:**
This subclass is indented under subclass 93.15. Apparatus wherein the character carrying member comprises a rotatable print unit.
- 93.18 With printing type carried on rotatable member:**
This subclass is indented under subclass 93.15. Apparatus in which the print characters are part of or carried on a member movable at least substantially 360 degrees about its axis.
- (1) Note. A print wheel either having print characters extending completely around its periphery or disclosed as rotating but having print characters extending partially therearound is considered proper subject matter for classification here.
- 93.19 Single disk:**
This subclass is indented under subclass 93.18. Apparatus in which the member comprises a relatively thin rotating member having print characters at or about its periphery.
- 93.2 With diverse type print character carrier:**
This subclass is indented under subclass 93.18. Apparatus in which in addition to the rotating print character carrying member there is provided another print character carrying member which is other than rotatably, each member engageable with a common platen member.
- 93.21 Rotating axis parallel to print line:**
This subclass is indented under subclass 93.18. Apparatus in which the member having the print characters thereon rotates about an axis which is at least substantially parallel to the line being printed.
- 93.22 Slows to print:**
This subclass is indented under subclass 93.21. Apparatus in which the rotating type carrying member includes a means alternately accelerating and retarding its rotative movement, the rotation thereof being impeded for the act of printing.
- 93.23 Having skewed or helically spaced print characters:**
This subclass is indented under subclass 93.21. Apparatus in which either (1) the print characters are spirally arranged over the circumference of the rotatable print character carrying member or (2) like print characters in axially spaced column of print characters are circumferentially spaced on the rotating member.
- 93.24 Rotatable member movable to platen:**
This subclass is indented under subclass 93.21. Apparatus in which the member having the print characters thereon is also movable in a direction to strike a backing or platen member to thereby perform a printing action.
- 93.25 Arcuately moving:**
This subclass is indented under subclass 93.24. Apparatus wherein the member movable to engage the rotatable print character carrying member moves in a curved path of travel.
- 93.26 With relatively movable print type:**
This subclass is indented under subclass 93.21. Apparatus in which the rotating member has mounted thereon a plurality of individually movable print characters, the individually movable print characters being selectively moved to a print position whereby the print action may be performed.
- 93.27 With plural record printing:**
This subclass is indented under subclass 93.21. Apparatus wherein a plurality of spaced platen or hammer sets are positioned adjacent the periphery of the rotatable print character carrying member, each set performing a separate print action on a separate record means.
- (1) Note. The record means may be a tape, sales slip, envelope, etc.
- 93.28 Hammer member movable to print member:**
This subclass is indented under subclass 93.21. Apparatus in which there is provided a member movable in a direction to strike one or more type or print characters on the rotatable member thereby to perform a printing action.

93.29 Including electromagnetically actuated means:

This subclass is indented under subclass 93.28. Apparatus in which the means to move the member striking the type or print characters to perform the print action includes a solenoid or like electrical member.

SEE OR SEARCH CLASS:

335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, subclasses 229+ for the combination of an electromagnet used in conjunction with a permanent magnet.

93.3 Rotary member moves hammer to engage print characters:

This subclass is indented under subclass 93.29. Apparatus in which there is provided a rotating member having an impelling surface or means thereon for impelling the print character striking member into engagement with a print character.

93.31 With intermediate force transmitting member:

This subclass is indented under subclass 93.3. Apparatus in which there is provided a separate movable member interposed between the solenoid or like means and the type or print character striking member, the rotating member moving the interposed member into engagement with the striking member to perform the print action.

93.32 With intermediate force transmitting member:

This subclass is indented under subclass 93.29. Apparatus in which there is provided a movable member interposed between the solenoid or like means and the type or print character striking member, the interposed member being caused to move the striking member into engagement with a print character to perform the print action.

93.33 With spring:

This subclass is indented under subclass 93.32. Apparatus in which there is provided a resilient mechanical device for urging the interposed member in at least one direction of its movement.

93.34 With spring:

This subclass is indented under subclass 93.29. Apparatus in which there is provided a resilient mechanical device for urging the striking member in at least one direction of its movement.

93.35 With mechanically actuated platen or hammer

This subclass is indented under subclass 93.28. Apparatus in which there is provided a member movable to engage the rotatable print character carrying member to perform the printing act, the movable member being moved solely by mechanistic elements, e.g., cams, levers, springs, etc.

93.36 Arcuately moving:

This subclass is indented under subclass 93.35. Apparatus wherein the member movable to engage the rotatable print character carrying member moves in a curved path of travel.

93.37 With printing type carried on reciprocating member:

This subclass is indented under subclass 93. Apparatus in which the print characters are part of a member movable alternately back and forth in a path of travel.

93.38 Member having plural print type sets:

This subclass is indented under subclass 93.37. Apparatus in which the print character carrying member includes at least two spaced sets of print characters.

(1) Note. A print character carrying member having a set of characters, portions of which are grouped together on different faces thereof is considered proper for classification here.

93.39 With separate printing at each set:

This subclass is indented under subclass 93.38. Apparatus wherein there is a separate platen member cooperating with each print character set enabling simultaneous spaced print actions on separate record means.

93.4 Plural sets on same member face:

This subclass is indented under subclass 93.39. Apparatus wherein each set of print characters is mounted on the same face of the reciprocating member.

93.41 Platen member movable to type carrier:

This subclass is indented under subclass 93.37. Apparatus in which there is provided a member movable in a direction to engage the print characters whereby to perform a print action.

93.42 Electromagnetically actuated:

This subclass is indented under subclass 93.41. Apparatus in which the movable member is urged to engage the print character by the force exerted thereto of a solenoid or like electrical member.

93.43 Type moved to platen electromagnetically:

This subclass is indented under subclass 93.37. Apparatus wherein a print character carrying member is moved to engage a relatively stationary member by the force exerted thereto of a solenoid or like member, the print character carrying member being moved either, per se, or by an intermediate member acting thereon.

93.44 Type member moves in arcuate path:

This subclass is indented under subclass 93.37. Apparatus in which the member carrying the printing characters moves back and forth in a circular path generally substantially less than 360 degrees.

93.45 Having relatively movable type:

This subclass is indented under subclass 93.37. Apparatus in which the member movable alternately back and forth is provided with individual print character means movable relative thereto and to each other.

93.46 Member position controlled electromagnetically:

This subclass is indented under subclass 93.45. Apparatus in which movement of the print carrying reciprocating member is controlled by means including a solenoid or like member for selectively positioning the print characters at the print line.

93.47 With print character carrying member movable to platen:

This subclass is indented under subclass 93. Apparatus in which a member having indicia or symbol thereon is moved in a direction to engage a platen member thereby to perform a print action.

93.48 Print hammer assembly per se:

This subclass is indented under subclass 93. Apparatus comprising a member engageable with a print character member not otherwise claimed or disclosed.

- (1) Note. Hammers or platen member disclosed or claimed for use with a specific type of print character carrying member are classified with the particular print character carrying member.

94 Oscillating:

This subclass is indented under subclass 93. Machines wherein the path of approach of the bed and platen to printing position is in an arc intersecting the surface to be printed upon.

SEE OR SEARCH THIS CLASS, SUBCLASS:

20, 61, 64, 65, and 80+, for other oscillating bed and platen machines.

95 Drum series:

This subclass is indented under subclass 94. Machines, there being a plurality of rotatable coaxial members with printing characters on their peripheries.

96 Ribbon inker:

This subclass is indented under subclass 95. Machines, an inked ribbon being held over the type during the printing act.

97 Pad inker:

This subclass is indented under subclass 95. Machines having an ink-pad making contact with the type along a path intersecting the type-surface.

98 Pad inker:

This subclass is indented under subclass 94. Machines having an ink-pad making contact with the type along a path intersecting the typed-surface.

SEE OR SEARCH THIS CLASS, SUBCLASS:

97, and 103, for other pad inkers.

- 99 Drum series:**
This subclass is indented under subclass 93. Machines having a plurality of rotatable coaxial members with printing characters on their peripheries.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
14, 59, 79+, and 95+, for other drum series machines.
- 100 Ribbon inker:**
This subclass is indented under subclass 99. Machines, an inked ribbon being held over the type during the printing act.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
96, for other ribbon inkers.
- 101 Pad inker:**
This subclass is indented under subclass 99. Machines with an ink-pad making contact with the type along a path intersecting the type-surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
98, for other pad inkers.
- 102 Ribbon inker:**
This subclass is indented under subclass 93. Machines, an inked ribbon being held over the type during the printing act.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
96, and 100, for other ribbon inkers.
- 103 Printing members and inkers:**
This subclass is indented under subclass 45. Limited to printing-surfaces and supporting and holding means therefor in combination with means for applying ink to the surfaces for machines.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
84+, for numbering printing members.
- 104 Tumbler bed and pad inker:**
This subclass is indented under subclass 103. Means, the printing member being inverted to make nonrolling contact with an ink-pad.
- 105 Endless type band:**
This subclass is indented under subclass 104. Means, the printing characters being carried on endless flexible strips or belts.
- 106 Drum series:**
This subclass is indented under subclass 103. Means having a plurality of rotatable coaxial members with printing characters on their peripheries.
- 107 Ribbon inker:**
This subclass is indented under subclass 106. Means, an ink-ribbon being held over the type.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
96, and 100, for other ribbon inkers.
- 108 Pad inker:**
This subclass is indented under subclass 106. Means with an ink-pad making contact with the type along a path intersecting the type-surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
97, and 101, for other pad inkers.
- 109 Printing members:**
This subclass is indented under subclass 45. Limited to the specific members that bear the printing-surfaces and supporting and holding means therefor for machines.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
29, and 84+, for other selective or progressive printing members.
- 110 Drum series:**
This subclass is indented under subclass 109. Means, the printing members comprising a plurality of rotatable coaxial members with printing characters on their peripheries.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
14, 59, 75, 77, 79+, 83, 85+, 95+, 99+, and 106+, for other drum series members.
- 111 Endless band:**
This subclass is indented under subclass 109. Means, the printing characters being carried on endless flexible strips or belts.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
105, for other endless band printing members.
- 112 Stencil plate:**
This subclass is indented under subclass 109. Means comprising stencil-plates each having a plurality of characters or designs from which selection may be made.
- 113 DUPLICATING MACHINES:**
This subclass is indented under the class definition. Machines having means to produce a plurality of copies of the same matter at each printing operation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
67+, and 90, for other duplicating machines.
- 114 STENCILING:**
This subclass is indented under the class definition. Subject matter using tools or members having design areas through which inks pigment, or other coating substance may pass to the surface to be printed upon.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
48+, and 112, for other stencil machines and stencils.
- 115 Multicolor:**
This subclass is indented under subclass 114. Machines for producing stenciled effects in a plurality of colors or tints.
- 116 Rotary machines**
This subclass is indented under subclass 114. Machines, the work being engaged in rolling contact between the peripheries of rotating members, the periphery of one of the members being or carrying a stencil.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
49, for other rotary stencil machines.
- 117 Cutting and feeding or delivering:**
This subclass is indented under subclass 116. Machines having means to perforate or sever the work and means to move it to or from stenciling position.
- 118 Feeding or delivering:**
This subclass is indented under subclass 116. Machines having means to move the work to or from stenciling position.
- 119 Internal inker:**
This subclass is indented under subclass 116. Machines, the ink being supplied from within the stencil member.
- 120 Contact member:**
This subclass is indented under subclass 119. Machines, the inker being in traveling contact with the back of the stencil.
- 121 Stencil-web machines:**
This subclass is indented under subclass 114. Machines employing stencils in strip form, which strip may be composed of separate sections.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
50, and 60+, for other stencil web machines and interconnected plate machines.
- 122 Endless band:**
This subclass is indented under subclass 121. Machines includes stencil-web in the form of an endless band.
- 123 Traveling-inker machines :**
This subclass is indented under subclass 114. Machines wherein the inker is passed bodily over the back of the stencil.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

51, for other traveling inker machines.

124 Stationary-inker machines

This subclass is indented under subclass 114. Machines wherein the stencil is caused to move past a nontraveling inker.

125 Stencil and pad inker:

This subclass is indented under subclass 114. Machines comprising a stencil-plate with an ink-pad covering the back of the same.

126 Stencil and work support:

This subclass is indented under subclass 114. Machines limited to means for holding a stencil and the work in associated relation.

127 Stencils:

This subclass is indented under subclass 114. Subject matter including (1) stenciling elements, i.e., stencils and blanks including mounts, holders and extensions, (2) processes of and apparatus for manufacture of such elements not elsewhere provided for, and (3) such processes combined with a use step.

- (1) Note. The term "blank" includes the sheet or plate through which the stenciling openings are to be made or the unit including the unperforated stencil sheet and its attached protecting or backing sheets. The term "stencil" includes the sheets or plates with the openings in them and also such completed sheets or plates combined with backing or protective sheets.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

48+, for selective or progressive addressing machines using stencils.

112, for stencil plates used in selective and progressive printing machines.

129, for stenciling processes.

SEE OR SEARCH CLASS:

33, Geometrical Instruments, particularly subclasses 562+ and see the reference to Class 101, Printing, in (3) Note in said subclass.

99, Foods and Beverages: Apparatus, subclasses 388 and 430 for stencils which mark food during the cooking thereof.

106, Compositions: Coating or Plastic, appropriate subclasses for stenciling compositions.

118, Coating Apparatus, subclasses 504+ and see the Notes thereto, for devices for protecting areas adjacent to the part being coated.

132, Toilet, subclass 216 for eyebrow stencils to act as templates in the application of make-up, subclass 73 for manicure stencils, and subclass 319 for other stencils adapted for use with toilet articles (e.g., rouge or lipstick).

427, Coating Processes, subclass 143 for processes of coating, per se, wherein the product produced is a stencil blank.

428, Stock Material or Miscellaneous Articles, appropriate subclasses for a single or plural layer stock material product in the form of a web or sheet, and especially subclasses 131+ for such a product including apertures.

434, Education and Demonstration, particularly subclasses 117 and 162+ for writing guides.

451, Abrading, subclasses 29+, 442, 445, 448, and 457 for an abrading shield, including an erasing shield (subclass 445), a mask, or a stencil; and see the search notes of subclass 442.

127.1 Mounts, holders and extensions:

This subclass is indented under subclass 127. Devices including (A) a stencil or blank combined with (1) a mount or holder, usually a frame surrounding it, (2) an extension usually an index tab or sheet bearing indicia, (3) means for attaching the stencil or blank to other structures such as a duplicating machine or surface to be stenciled, or (4) any of the above combined, and (B) the mounts or holders, per se.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

127, for single stencil sheets or plates provided with an adhesive area.

415.1, for flexible sheet securing devices.

SEE OR SEARCH CLASS:

- 40, Card, Picture, or Sign Exhibiting, subclasses 642.02+ for a display label holder, per se, which may be utilized for a stencil holder.
- 160, Flexible or Portable Closure, Partition, or Panel, subclasses 371+ for frame type devices for flexible fabrics and see the Notes thereto for the search for similar structures.
- 400, Typewriting Machines, subclasses 521+ for card holders which hold cards against the platen of a typewriter.

128 Settable units

This subclass is indented under subclass 127.1. Subject matter, including a plurality of stencils which can be assembled in a desired order and adjuncts thereto.

SEE OR SEARCH CLASS:

- 160, Flexible or Portable Closure, Partition, or Panel, subclasses 218+ for movably interconnected plural strip, slat or panel type devices therein provided.

128.1 Attaching:

This subclass is indented under subclass 127.1. Subject matter, including means for attaching the stencil or stencil blank to other structures.

128.21 Laminated and/or plural sheets and/or coated base and manufacture:

This subclass is indented under subclass 127. Subject matter including (a) laminated or plural sheets including a blank which is or may be cut to form a stencil, (b) a specific base sheet combined with a coating, (c) apparatus and processes of manufacture of the above, and (d) such processes combined with a use step.

- (1) Note. Stenciling elements, i.e., stencils or blanks, including laminated or plural sheet stenciling elements defined in terms of the chemical composition of one of the layers or sheets of the stencil element without other printing structure limitations or printing steps shall be classified in the appropriate chemical product or material class.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 128.4, for manufacture processes including the assembly of a stencil or blank and its frame and for stencil cutting processes even though a laminated or coated base is cut.
- 129, for use processes only and see the notes thereto.
- 149.4, for hectographic surfaces, sheets, and plates which are not stencils.

SEE OR SEARCH CLASS:

- 428, Stock Material or Miscellaneous Articles, appropriate subclasses for a stock material product in the form of a single or plural layer web or sheet; and particularly subclasses 411.1+ for a plural layer product in which at least one of the layers is defined in terms of its composition.

128.4 Manufacture:

This subclass is indented under subclass 127. Subject matter, including apparatus and processes of manufacture, per se, or combined with a use step.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 129, for use processes only.

SEE OR SEARCH CLASS:

- 83, Cutting, appropriate subclasses, for cutting and punching in general.
- 234, Selective Cutting (e.g., Punching), for pertinent subclass(es) as determined by schedule review.

129 Processes:

This subclass is indented under subclass 114. Processes only for stenciling.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 128.4, for processes of manufacture of stencils even though a use step is claimed.

SEE OR SEARCH CLASS:

- 427, Coating Processes, subclasses 256+ for nonuniform coating processes which may include the use of a stencil. For the line between Classes 427

and 101 see the class definition of Class 427.

130 **PLANOGRAPHIC:**

This subclass is indented under the class definition. Process or apparatus of printing from a surface not depending upon differences in elevation, but (A) which surface has been treated so as to be ink-repellent except where an ink-attractive configuration has been placed thereon, or (B) on which surface an ink design has been prepared which will give off multiple impressions without re-inking.

- (1) Note. Within the meaning of this subclass the term “planographic” does not include printing from plain or smooth surfaces in which the design is first printed or otherwise delineated on the surface in ink and then transferred by impression to the surface to the printed on and the operation repeated for each impression. Operations of the latter sort are herein designated “transfer-printing” and classified as such under the appropriate main divisions, such as “Multicolor, Intaglio, Rolling-Contact Machines,” etc.

131 **Copying apparatus:**

This subclass is indented under subclass 130. Copying apparatus having a printing-surface bearing designs in ink of such a nature as not to require reinking, but which may be treated with a solvent to give off impressions.

SEE OR SEARCH THIS CLASS, SUBCLASS:

468+, for copying surfaces and processes of manufacture.

131.5 **Sheet flexing:**

This subclass is indented under subclass 131. Copying apparatus by which the printing surface and the sheet to be printed upon are brought into impression-taking contact by simultaneously flexing the surface and the sheet.

132 **Rotary:**

This subclass is indented under subclass 131. Copying apparatus, involves work engaged in rolling contact between the peripheries of rotating members.

132.5 **With dampener:**

This subclass is indented under subclass 132. Rotary copying apparatus employing dampening means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

131, 133, 134.5, 147, and 148, for dampening structure.

SEE OR SEARCH CLASS:

118, Coating Apparatus, appropriate subclasses for dampening apparatus, per se.

133 **Bed-and-cylinder:**

This subclass is indented under subclass 131. Copying apparatus comprising a flat printing member and a cylinder, between which the work is engaged by rolling contact.

134 **Multicolor ink block:**

This subclass is indented under subclass 133. Copying apparatus in which the printing-surface is formed by dry ink-blocks of different colors.

134.5 **Bed and platen:**

This subclass is indented under subclass 131. Opposed members capable of relative movement toward each other to make the impression by a nonrolling contact.

- (1) Note. For details of mechanism for imparting the movement, see the Search Notes below.

SEE OR SEARCH THIS CLASS, SUBCLASS:

41+, 57+, 68-70, 78+, 93+, 163+, 193+, and 287+, for other bed and platen machines.

SEE OR SEARCH CLASS:

74, Machine Element or Mechanism, for details of mechanism for imparting the movement, (see (1) Note).

100, Presses, subclasses 214+ for reciprocating platen presses not elsewhere provided for. See (1) Note above.

- 135 Multicolor:**
This subclass is indented under subclass 130. Apparatus for printing with inks of different colors or tints.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
134, for related copying apparatus.
- 136 Rotary machines:**
This subclass is indented under subclass 135. Machines in which the work is engaged in rolling contact between the peripheries of rotating members.
- 137 Transfer with interrupter:**
This subclass is indented under subclass 136. Machines wherein the design is first printed by means of a planographic surface on an intermediate surface and then offset or transferred to the surface to be printed on, there being also means whereby to prevent an impression.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
142+, 154, 177, 215, 217+, and 251+, for other transfer machines.
- 138 Web:**
This subclass is indented under subclass 136. Machines for printing on continuous strips of indefinite length.
- 139 Interrupter:**
This subclass is indented under subclass 138. Machines with means whereby to prevent an impression.
- 140 Interrupter:**
This subclass is indented under subclass 136. Machines with means whereby to prevent an impression.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
139, for web machines with interrupter.
- 141 Rotary machines:**
This subclass is indented under subclass 130. Machines in which the work is engaged in rolling contact between the peripheries of rotating members.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
132, and 136+, for other rotary planographic machines.
- 142 Transfer:**
This subclass is indented under subclass 141. Machines wherein the design is first printed by means of a planographic surface on an intermediate smooth surface, and then offset or transferred to the surface to be printed on.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
137, 154, 177, 215, 217+, and 251+, for other transfer machines.
- 143 Web with interrupter:**
This subclass is indented under subclass 142. Machines for printing on continuous strips of indefinite length, there being means whereby to prevent an impression.
- 144 Interrupter:**
This subclass is indented under subclass 142. Machines with means whereby to prevent an impression.
- 145 Interrupter:**
This subclass is indented under subclass 141. Machines with means whereby to prevent an impression.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
137, 139, 140, 143, and 144, for other machines with interrupter.
- 146 Bed-and-cylinder machines:**
This subclass is indented under subclass 130. Machines comprising a flat printing member and a cylinder, between which the work is engaged by rolling contact.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
133, for related copying apparatus.
- 147 Dampeners:**
This subclass is indented under subclass 130. Attachments for machines for applying water or other ink-repellents to the printing-surface.

- SEE OR SEARCH CLASS:
100, Presses, subclasses 73+ for presses, not elsewhere provided for, having means to treat the material pressed with liquid and/or steam.
- 148 Roller fountain:**
This subclass is indented under subclass 147. Means wherein the dampeners are cylindrical in form, the dampening material being supplied from a reservoir.
- 150 INTAGLIO:**
This subclass is indented under the class definition. Subject matter in which printing is done by means of surfaces dependent upon design-grooves to retain the ink.
- 151 Multicolor:**
This subclass is indented under subclass 150. Subject matter in which printing is done with inks of different colors or tints.
- 152 Rotary machines:**
This subclass is indented under subclass 151. Machines in which the work is engaged in rolling contact between the peripheries of rotating members.
- 153 Rotary:**
This subclass is indented under subclass 150. Machines in which the work is engaged in rolling contact between the peripheries of rotating members.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
152, for rotary, multicolor, intaglio machines.
- 154 Transfer with scraper wiper:**
This subclass is indented under subclass 153. Machines, the design being first printed by means of an intaglio surface upon an intermediate smooth surface and then offset or transferred onto the work, there being a stiff blade for scraping off the ink not retained in the grooves of the intaglio surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
137, 142+, 177, 215, 217+, and 251+, for other transfer machines.
- 157, for other scrapers.
- 155 Wiper:**
This subclass is indented under subclass 153. Machines having means for removing the ink not retained in the grooves of the printing surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
167+, for other wipers.
- 156 Web:**
This subclass is indented under subclass 155. Machines employing a long flexible strip adapted to present a fresh portion at each operation.
- 157 Scraper:**
This subclass is indented under subclass 155. Machines, the wiper being a stiff blade bearing against the surface in line contact.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
154, for other scrapers.
- 158 Bed-and-cylinder machines:**
This subclass is indented under subclass 150. Machines comprising a flat printing member and a cylinder, between which the work is engaged in rolling contact.
- 159 Circulating bed:**
This subclass is indented under subclass 158. Machines, the printing-bed traveling head foremost around a circuit.
- 160 Roller inker with web wiper:**
This subclass is indented under subclass 159. Machines, there being an ink-applying roller not receiving ink from a plate and a long flexible strip for removing the ink not retained in the grooves of the printing element.
- 161 Roller inker with wiper:**
This subclass is indented under subclass 158. Machines, there being an ink-applying roller not receiving ink from a plate and means for removing the ink not retained in the grooves of the printing element.

- 162 Web wiper:**
This subclass is indented under subclass 161. Machines, the wiper being a long flexible strip.
- 163 Bed and platen:**
This subclass is indented under subclass 150. Machines in which the impression is made without rolling contact with the surface to be printed.
- (1) Note. See the search note under subclass 41 of this class.
- 164 Reciprocating bed with roller inker and web wiper:**
This subclass is indented under subclass 163. Machines, the printing member moving in a straight path, there being an ink-applying roller not receiving ink from a plate and a long flexible strip for removing the ink not retained in the grooves of the printing member.
- 165 Roller inker with web wiper:**
This subclass is indented under subclass 163. Machines, there being an ink-applying roller not receiving ink from a plate and a long flexible strip for removing the ink not retained in the grooves of the printing member.
- 166 Web wiper:**
This subclass is indented under subclass 163. Machines, there being a long flexible strip for removing the ink not retained in the grooves of the printing member.
- 167 Wipers:**
This subclass is indented under subclass 150. Attachments for machines limited in function to removing the ink from the printing surface except where retained by the design-grooves.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
155, and 161, for other wipers.
- 168 Web:**
This subclass is indented under subclass 167. Means employing a long flexible strip adapted to present a fresh portion at each operation.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
156, 160, 162, 164, and 165, for other webs.
- 169 Scraper:**
This subclass is indented under subclass 167. Means employing a stiff blade bearing against the surface in line contact.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
154, and 157, for other scrapers.
- 170 Processes:**
This subclass is indented under subclass 150. Processes only, dependent upon intaglio printing.
- 171 MULTICOLOR:**
This subclass is indented under the class definition. Machines which involve printing with inks of different colors or tints.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
115, 134, 135+, and 151+, for other multi-color machines.
- 172 Yarn:**
This subclass is indented under subclass 171. Machines peculiarly adapted for printing on strands, either singly or side by side.
- SEE OR SEARCH CLASS:
68, Textiles: Fluid Treating Apparatus, subclasses 200+, for apparatus for applying liquids to textiles.
- 173 Rotary and bed-and-cylinder machines:**
This subclass is indented under subclass 171. Machines, which combine both "rotary" and "bed-and-cylinder" structures.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
214+, for rolling contact, rotary and bed and cylinder machines.

- 174 Rotary machines:**
This subclass is indented under subclass 171. Machines in which the work is engaged in rolling contact between the peripheries of rotating members.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
152, for multicolor, rotary, intaglio machines.
- 175 Single impression:**
This subclass is indented under subclass 174. Machines, the complete design being printed by one passage of the work through one couple.
- 176 Web:**
This subclass is indented under subclass 175. Machines for printing on continuous strips of indefinite length.
- 177 Transfer:**
This subclass is indented under subclass 174. Machines, the design being printed upon an intermediate surface and then transferred or offset onto the work.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
137, 142+, 154, 217, and 251+, for other transfer machines.
- 178 Web:**
This subclass is indented under subclass 174. Machines for printing on continuous strips of indefinite length.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
138, for planographic, multicolor, rotary, web machines.
- 179 Perfecting:**
This subclass is indented under subclass 178. Machines having means peculiarly adapted for printing on both sides of the web, at least one side in multicolor.
- 180 Multiple couple:**
This subclass is indented under subclass 179. Machines employing a plurality of separate printing-couples for printing different colors on the same side of the web.
- 181 Multiple couple:**
This subclass is indented under subclass 178. Machines employing a plurality of separate printing-couples.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
180, for similar perfecting machines.
- 182 Interrupter:**
This subclass is indented under subclass 178. Machines having means to prevent an impression.
- 183 Multiple couple:**
This subclass is indented under subclass 174. Machines employing a plurality or separate printing-couples.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
180, and 181, for multiple couple web machines.
- 184 Interrupter:**
This subclass is indented under subclass 183. Machines having means to prevent an impression.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
182, for web machines with interrupter.
- 185 Interrupter:**
This subclass is indented under subclass 174. Machines having means whereby to prevent an impression.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
139, 140, 144, 145, 182, and 184, for other rotary machines with interrupter.

- 186 Bed-and-cylinder machines:**
This subclass is indented under subclass 171. Machines comprising a flat printing member and a cylinder, between which the work is engaged in rolling contact.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
173, for rotary and bed-and-cylinder machines.
- 187 Single impression:**
This subclass is indented under subclass 186. Machines, a complete design being printed by one passage of the work through one couple.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
175+, for rotary single impression multi-color machines.
- 188 Lateral shift:**
This subclass is indented under subclass 186. Machines, the work being moved longitudinally of the cylinder between impressions to present it to a different printing-surface.
- 189 Multiple cylinder:**
This subclass is indented under subclass 186. Machines having a plurality of cylinders and cooperating forms, to which the work is successively presented.
- 190 Perfecting:**
This subclass is indented under subclass 189. Machines having means peculiarly adapted for printing on both sides of the work, at least one side being in multicolor.
- 191 Throw-off:**
This subclass is indented under subclass 189. Machines including means for bringing the bed and cylinder together on the printing stroke and separating them on the return stroke.
- 192 Interrupter:**
This subclass is indented under subclass 191. Machines having means whereby to prevent an impressions.
- 193 Bed-and-platen machines:**
This subclass is indented under subclass 171. Machines in which the impression is made without rolling contact.
- (1) Note. See the search note under subclass 41 of this class.
- 194 Single impression:**
This subclass is indented under subclass 193. Machines, the complete design being printed by one passage of the work through one couple.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
175+, for single impression rotary machines.
187, for single impression bed-and-cylinder machines.
- 195 Oscillating machines with roller and plate inker:**
This subclass is indented under subclass 194. Machines wherein the path of approach of the bed and platen to printing position is in an arc intersecting the surface to be printed on, there being an ink-supply plate and a roller for transferring ink therefrom to the printing-surface.
- 196 Web:**
This subclass is indented under subclass 193. Machines adapted for printing on continuous strips of indefinite length.
- 197 Oscillating bed:**
This subclass is indented under subclass 196. Machines wherein the printing member oscillates.
- 198 Reciprocating bed:**
This subclass is indented under subclass 196. Machines, the printing member moving in a straight path.
- 199 Roller inker:**
This subclass is indented under subclass 198. Machines having an ink-roller not receiving ink from a plate.

- 200 Oscillating:**
This subclass is indented under subclass 193. Machines wherein the bed and platen approach to printing position is in an arc intersecting the surface to be printed on.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
195, and 197, for other oscillating bed-and-platen machines.
- 201 Rising-and-falling type:**
This subclass is indented under subclass 171. Machines which consist of printing-forms each having one or more sections adapted to be moved from the plane of the printing-surface to be inked or to escape inking.
- 202 Inkers:**
This subclass is indented under subclass 171. Limited to attachments for applying ink to the printing-surface of machines.
- 203.1 Roller and plate:**
This subclass is indented under subclass 202. Means having an ink-supply plate and a roller for transferring ink therefrom to the printing-surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
195, for other roller and plate inkers.
- 204 Fountain:**
This subclass is indented under subclass 203.1. Means, the plate receiving ink from a reservoir.
- 204.1 Multi-disc plate:**
This subclass is indented under subclass 203.1. Means wherein said ink supply plate is a multiple disk type, for transferring ink therefrom to the printing surface.
- 205 Roller:**
This subclass is indented under subclass 202. Means having an ink-roller not receiving ink from a plate.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
199, for other roller inkers.
- 206 Rotary machine:**
This subclass is indented under subclass 205. Means peculiarly adapted in which the work is engaged between the peripheries of rotating members.
- 207 Fountain:**
This subclass is indented under subclass 206. Means, the roller receiving ink from a reservoir.
- 208 Fountain:**
This subclass is indented under subclass 205. Means, the roller receiving ink from a reservoir.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
207, for other fountains.
- 209 Interrupter:**
This subclass is indented under subclass 205. Means with means to prevent inking.
- 210 Fountains:**
This subclass is indented under subclass 202. Means limited to supply-reservoir structure.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
204, 207, and 208, for other fountains.
- 211 Processes:**
This subclass is indented under subclass 171. Processes only, dependent on printing in a plurality of different colors.
- 212 ROLLING CONTACT MACHINES:**
This subclass is indented under the class definition. Machines for printing by exerting a rolling contact between the printing-surface and the surface to be printed upon.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
5+, and 22+, for rolling contact embossing or penetrating machines.
36+, for rolling contact special article machines.

213 Rotary printer and web roll with roller inker:

This subclass is indented under subclass 212. Devices adapted to hold a roll of paper or the like and having a rotary printing member bearing against the roll, with an ink-applying roller not receiving ink from a plate. As the web is pulled out it is automatically printed upon.

- (1) Note. For similar roll-holders without printing attachments see Classes 83, Cutting; and 242, Winding, Tensioning, or Guiding, subclasses 550+ and 570+.

SEE OR SEARCH CLASS:

- 83, Cutting, (see (1) Note).
226, Advancing Material of Indeterminate Length, appropriate subclasses for methods of, and apparatus for, feeding material without utilizing the leading or trailing ends to effect movement of the material.
242, Winding, Tensioning, or Guiding, subclasses 550+ and 570+ for an unwinding machine or roll holder of general use.

214 Rotary and bed-and-cylinder:

This subclass is indented under subclass 212. Machines which combine both "rotary" and "bed-and-cylinder" structure.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 173, for similar multicolor machines.

215 Transfer:

This subclass is indented under subclass 214. Machines, the design being printed upon an intermediate surface and then transferred or offset onto the work.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 33+, 137, 142+, 154, 177, 217+, and 251, for other transfer machines.

216 Rotary:

This subclass is indented under subclass 212. Machines in which the work is engaged in rolling contact between the peripheries of rotating members.

- (1) Note. Does not include those which oscillate to-and-fro.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 6, 23+, 36, 37, 49, 52+, 74, 75+, 77, 91, 92, 116+, 132, 136+, 141+, 152, 153+, 173, 174+, 214, and 215, for other machines.

SEE OR SEARCH CLASS:

- 100, Presses, subclasses 155+ for concurrent pressing and conveying presses of the roller type, not elsewhere provided for.
270, Sheet-Material Associating, subclasses 4+, 18+ and 20.1 for rotary printer combinations.

217 Transfer:

This subclass is indented under subclass 216. Machines the design being first printed on an intermediate surface and then offset or transferred onto the work.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 33, 137, 142+, 154, 177, 215, and 251+, for other transfer machines.

218 Interrupter:

This subclass is indented under subclass 217. Machines having means to prevent an impression.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 137, and 247, for other rotary machines with interrupter.

219 Web:

This subclass is indented under subclass 216. Machines for printing on continuous strips of indefinite length.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 92, 178+, and 213, for other rotary, web machines.

- 220 Perfecting:**
This subclass is indented under subclass 219. Machines having means peculiarly adapted for printing on both sides of the web.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
179+, for rotary, perfecting, multicolor machines.
- 221 Multiple impression:**
This subclass is indented under subclass 220. Machines, a plurality of impressions being made on at least one side of the web.
- 222 Reversing:**
This subclass is indented under subclass 221. Machines, there being means for turning the web over about its longitudinal axis prior to the perfecting impression.
- 223 Reversing:**
This subclass is indented under subclass 220. Machines, there being means for turning the web over about its longitudinal axis prior to the perfecting impression.
- 224 Cutting and feeding or delivering:**
This subclass is indented under subclass 220. Machines having means for perforating the web or severing after printing, with means to feed or deliver the work.
- 225 Feeding or delivering:**
This subclass is indented under subclass 220. Machines with means to feed or deliver the work.
- 226 Cutting:**
This subclass is indented under subclass 219. Machines having means for perforating the web or severing after printing.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
224, for perfecting machines having cutting.
- 227 Feeding or delivering:**
This subclass is indented under subclass 226. Machines having means to move the work to or from the machine.
- 228 Feeding or delivering:**
This subclass is indented under subclass 219. Machines having means to move the work to or from the printing mechanism.
- 229 Perfecting:**
This subclass is indented under subclass 216. Machines having means peculiarly adapted for printing on both sides of sheets.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
220+, for perfecting web machines.
- 230 Reversing:**
This subclass is indented under subclass 229. Machines wherein the sheets are turned over prior to the perfecting impression other than by a continuous forward movement without lateral deflection.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
222, 223, and 257, for web machines that reverse.
- 231 Feeding or delivering:**
This subclass is indented under subclass 229. Machines having means to move the work to or from printing position.
- 232 Feeding or delivering:**
This subclass is indented under subclass 216. Machines having means to move the work to or from printing position.
- SEE OR SEARCH CLASS:
100, Presses, subclass 173 for roller type concurrent pressing and conveying presses, not elsewhere provided for, having material handling or guiding means.
- 233 Article-controlled machines:**
This subclass is indented under subclass 232. Machines wherein the printing-couple moves into operative position due to the presence of the article.
- 234 Tripped printing member:**
This subclass is indented under subclass 233. Machines, movement being given the type-carrying cylinder to bring it to position.

- 235 Single revolution:**
This subclass is indented under subclass 234. Machines, the printing-cylinder being arrested except during the passage of the article.
- 236 Stacking:**
This subclass is indented under subclass 235. Machines with means to arrange the printed articles in a compact collection.
- 237 Stacking:**
This subclass is indented under subclass 234. Machines with means to arrange the printed articles in a compact collection.
- 238 Stacking:**
This subclass is indented under subclass 233. Machines with means to arrange the printed articles in a compact collection.
- 239 Article-timing stop:**
This subclass is indented under subclass 238. Machines, there being a positive stop for the article to bring it into register with the printing-surface.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
241, and 242, for other article turning stops.
- 240 Stacking:**
This subclass is indented under subclass 232. Machines with means to arrange the printed articles in a compact collection.
- 241 Article-timing stop:**
This subclass is indented under subclass 240. Machines, there being a positive stop for the article to bring it into register with the printing surface.
- 242 Article-timing stop:**
This subclass is indented under subclass 232. Machines, there being a positive stop for the article to bring it into register with the printing-surface.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
239, and 241, for other article turning stops.
- 243 Ribbon inker:**
This subclass is indented under subclass 232. Machines, an ink-ribbon being held over the printing-surface.
- 244 Ribbon inker:**
This subclass is indented under subclass 216. Machines, an ink-ribbon being held over the printing-surface.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
243, for other ribbon inkers.
- 245 Single revolution:**
This subclass is indented under subclass 216. Machines, the printing-cylinder being arrested except during the passage of the article.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
235+, for other single revolution machines.
- 246 Gripper cylinder:**
This subclass is indented under subclass 216. Machines, one of the cylinders having means for grasping the sheets.
- 247 Interrupter:**
This subclass is indented under subclass 216. Machines with means for preventing an impression.

SEE OR SEARCH THIS CLASS, SUB-CLASS:
139, 140, 143, 144, 145, 182, 184, 185, and 218, for other rotary machines with interrupter.

SEE OR SEARCH CLASS:
192, Clutches and Power-Stop Control, subclasses 126+ for means of this nature capable of general application.
- 248 Cylinder-registering mechanisms:**
This subclass is indented under subclass 216. Machines having means for moving one of the members of the printing-couple or the work so as to accurately present the desired portions of the work and the printing-surface to each other.

(1) Note. This subclass does not include mere adjustable gearing or journals.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
286, for related bed-and-cylinder machines.
- 249 Staggered blanket:**
This subclass is indented under subclass 216. Machines having a plurality of work-supporting blankets arranged side by side, but out of alinement, along the cylinder and adapted to cooperate with similarly-arranged typeforms.
- 250 Bed-and-cylinder:**
This subclass is indented under subclass 212. Machines comprising a flat printing member and a cylinder, between which the work is engaged by rolling contact.
- (1) Note. Does not include those having rotating members with flat printing-surfaces.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
55+, 133+, 146, 158+, 173, 186+, and 214+, for other bed-and-cylinder machines.
- SEE OR SEARCH CLASS:
74, Machine Element or Mechanism, for carriage-motion, per se, for machines of this type.
100, Presses, subclass 156 for presses of the concurrent pressing and conveying type, not elsewhere provided for, in which a roller coacts with a nonrotary press element.
270, Sheet-Material Associating, subclass 22.1 for this type machine combined with sheet associating or folding means.
- 251 Transfer:**
This subclass is indented under subclass 250. Machines, the design being first printed upon an intermediate surface and then offset or transferred onto the work.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
33, 137, 142+, 154, 177, 215, and 217+, for other transfer machines.
- 252 Traveling cylinder:**
This subclass is indented under subclass 251. Machines, the cylinder being given a bodily movement along the bed.
- 253 Web:**
This subclass is indented under subclass 250. Machines for printing on continuous strips of indefinite length.
- 254 Perfecting:**
This subclass is indented under subclass 253. Machines having means peculiarly adapted for printing on both sides of the web.
- 255 Circulating bed:**
This subclass is indented under subclass 254. Machines, the printing-bed traveling head foremost around in an endless path.
- 256 Traveling cylinder:**
This subclass is indented under subclass 254. Machines, the cylinder being given a bodily movement along the bed.
- SEE OR SEARCH CLASS:
270, Sheet-Material Associating, subclass 22.1 for this type machine combined with sheet associating or folding means.
- 257 Reversing:**
This subclass is indented under subclass 256. Machines having means to turn the web over about its longitudinal axis prior to the perfecting impression.
- 258 Oscillating cylinder:**
This subclass is indented under subclass 254. Machines the rotation of the cylinder being reversed with each reciprocation of the bed.
- 259 Circulating bed:**
This subclass is indented under subclass 253. Machines, the printing-bed traveling head foremost around in a circuit.
- 260 Traveling cylinder:**
This subclass is indented under subclass 253. Machines, the cylinder being given a bodily movement along the bed.

- 261 Oscillating cylinder:**
This subclass is indented under subclass 253. Machines, the rotation of the cylinder being reversed with each reciprocation of the bed.
- 262 Perfecting:**
This subclass is indented under subclass 250. Machines having means peculiarly adapted for printing on both sides of sheets.

SEE OR SEARCH THIS CLASS, SUBCLASS:
254+, for perfecting machines for printing on webs.
- 263 Circulating bed:**
This subclass is indented under subclass 262. Machines, the printing-bed traveling head foremost around in an endless path.
- 264 Traveling cylinder:**
This subclass is indented under subclass 262. Machines, the cylinder being given a bodily movement along the bed.
- 265 Stop cylinder:**
This subclass is indented under subclass 262. Machines with means for preventing the rotation of the cylinder except during the printing operation.
- 266 Oscillating cylinder with feeding or delivering:**
This subclass is indented under subclass 262. Machines, the rotation of the cylinder being reversed with each reciprocation of the bed and having work feeding or delivering means.
- 267 Feeding or delivering by additional revolution:**
This subclass is indented under subclass 262. Machines having means to deliver the sheet on the second revolution of the cylinder.
- 268 Circulating bed:**
This subclass is indented under subclass 250. Machines, the printing-bed traveling around head foremost in an endless path.

SEE OR SEARCH THIS CLASS, SUBCLASS:
60+, for addressing machines having inter-connected plates.
- 159+, 255, 259, and 263, for other circulating bed machines.
- 269 Traveling cylinder:**
This subclass is indented under subclass 250. Machines, the cylinder being given a bodily movement along the bed.

SEE OR SEARCH THIS CLASS, SUBCLASS:
56, 252, 256+, 260, and 264, for other traveling cylinder machines.

SEE OR SEARCH CLASS:
100, Presses, subclass 210 for roll and platen presses, not elsewhere provided for.
270, Sheet-Material Associating, subclass 22.1 for this type machine combined with sheet associating or folding means.
- 270 Circulating:**
This subclass is indented under subclass 269. Machines, the cylinder having a bodily travel in an endless path.
- 271 Feeding or delivering with ribbon inker:**
This subclass is indented under subclass 270. Machines with means to move the work to or from the printing mechanism, an ink-ribbon being held over the printing-surface.
- 272 Feeding or delivering:**
This subclass is indented under subclass 269. Machines with means to move the work to or from the printing mechanism.
- 273 Ribbon inker:**
This subclass is indented under subclass 272. Machines an ink-ribbon being held over the printing-surface.
- 274 Ribbon inker:**
This subclass is indented under subclass 269. Machines an ink-ribbon being held over the printing-surface.
- 275 Stop cylinder:**
This subclass is indented under subclass 250. Machines with means for preventing the rotation of the cylinder except during the printing operation.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
265, for perfecting, stop cylinder, machines.
- 276 Feeding or delivering:**
This subclass is indented under subclass 275. Machines with means to move the work to or from the printing position.
- 277 Oscillating cylinder:**
This subclass is indented under subclass 250. Machines, the rotation of the cylinder being reversed with each reciprocation of the bed.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
258, 261, and 266, for other oscillating cylinder machines.
- 278 Feeding or delivering:**
This subclass is indented under subclass 277. Machines with means to move the work to or from the printing mechanism.
- 279 Feeding or delivering:**
This subclass is indented under subclass 250. Machines with means to move the work to or from the printing mechanism.
- 280 Additional revolution:**
This subclass is indented under subclass 279. Machines with means to deliver the sheet on the second revolution of the cylinder.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
267, for other machines having this type of delivering.
- 281 Ribbon inker:**
This subclass is indented under subclass 250. Machines, an ink-ribbon being held over the printing-surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
271, 273, and 274, for other ribbon inkers.
- 282 Bed-and-cylinder movements only:**
This subclass is indented under subclass 250. Means for producing relative movement between the bed and cylinder not peculiar to the types of bed-and-cylinder machines named in the preceding subclasses.
- 283 Throw-off:**
This subclass is indented under subclass 282. Machines including means for bringing the bed and cylinder together on the printing stroke and separating them on the return stroke.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
191, for multicolor machines of this type.
- 284 Interrupter:**
This subclass is indented under subclass 283. Machines with means to prevent an impression.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
192, for multicolor machines of this type.
- 285 Interrupter:**
This subclass is indented under subclass 282. Machines with means to prevent an impression.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
284, for throw-off machines having interrupter means.
- SEE OR SEARCH CLASS:
192, Clutches and Power-Stop Control, subclasses 126+ for means of this nature susceptible of general application, functioning in a similar manner.
- 286 Cylinder-registering mechanisms:**
This subclass is indented under subclass 282. Means to accurately present the same portion of the surface of the cylinder to the type at each stroke.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
248, for rotary machines having cylinder-registering machines.
- SEE OR SEARCH CLASS:
74, Machine Element or Mechanism, for adjustable gearing merely for this purpose.

287 BED-AND-PLATEN MACHINES:

This subclass is indented under the class definition. Machines comprising two opposing pressure members so constructed as to contact simultaneously at all points with the work held therebetween, thereby effecting a non-rolling impression.

SEE OR SEARCH THIS CLASS, SUBCLASS:

3.1+, 41+, 57+, 68, 69+, 78+, 93+, 134.5, 163+, and 193+, for other bed-and-platen machines.

SEE OR SEARCH CLASS:

100, Presses, subclasses 214+ for reciprocating platen presses, not elsewhere provided for.

288 Web:

This subclass is indented under subclass 287. Machines for printing on continuous strips of indefinite length.

SEE OR SEARCH THIS CLASS, SUBCLASS:

196+, for multicolor machines of this type.

289 Perfecting:

This subclass is indented under subclass 288. Machines having means peculiarly adapted for printing on both sides of the web.

290 Reciprocating bed with roller inker:

This subclass is indented under subclass 289. Machines, the printing member moving in a straight path and having a roller-inkers not receiving ink from a plate.

291 Oscillating bed:

This subclass is indented under subclass 288. Machines, the printing member moving in an arc.

292 Reciprocating bed:

This subclass is indented under subclass 288. Machines, the printing member moving in a straight path.

293 Roller and plate inker:

This subclass is indented under subclass 292. Machines, there being an ink-supply plate and a roller for transferring ink there-from to the printing-surface.

294 Circulating roller:

This subclass is indented under subclass 293. Machines, the ink-roller traveling bodily in an endless path.

SEE OR SEARCH THIS CLASS, SUBCLASS:

304, and 308, for other inkers of this type.

295 Roller inker:

This subclass is indented under subclass 292. Machines, there being a roller-inkers not receiving ink from a plate.

296 Perfecting:

This subclass is indented under subclass 287. Machines having means peculiarly adapted for printing on both sides of sheets.

SEE OR SEARCH THIS CLASS, SUBCLASS:

289+, for perfecting web type machines.

297 Oscillating:

This subclass is indented under subclass 287. Machines wherein the path of approach of the bed and platen to printing position is an arc intersecting the surface to be printed on.

SEE OR SEARCH THIS CLASS, SUBCLASS:

10, 20, 61, 64, 65, 80, 81, 94+, 195, 197, 200, and 291, for other oscillating machines.

SEE OR SEARCH CLASS:

100, Presses, subclasses 233+ for reciprocating platen presses of the hinged type, not elsewhere provided for.

298 Oscillating bed:

This subclass is indented under subclass 297. Machines, the printing member moving in an arc.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
197, and 291, for other oscillating bed machines.
- 299 Interrupter:**
This subclass is indented under subclass 298. Machines with means to prevent an impression.
- 300 Roller and plate inker:**
This subclass is indented under subclass 299. Machines, there being an ink-supply plate and a roller for transferring ink therefrom to the printing-surface.
- 301 Inker:**
This subclass is indented under subclass 298. Machines with means for applying ink to the printing-surface.
- 302 Roller and plate:**
This subclass is indented under subclass 301. Machines comprising an ink-supply plate and a roller for transferring ink therefrom to the printing-surface.
- 303 Traveling plate:**
This subclass is indented under subclass 302. Machines, the plate being bodily movable to carry ink to the roller.
- 304 Circulating roller:**
This subclass is indented under subclass 302. Machines, the ink-roller traveling bodily in an endless path.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
294, and 308, for other circulating roller inkers.
- 305 Roller:**
This subclass is indented under subclass 301. Machines comprising a roller not receiving ink from a plate.
- 306 Interrupter:**
This subclass is indented under subclass 297. Machines with means to prevent an impression.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
299+, for other oscillating machines with interrupter.
317, for reciprocating bed machines with interrupter.
- 307 Roller plate inker:**
This subclass is indented under subclass 306. Machines, there being an ink-supply plate and a roller for transferring ink therefrom to the printing-surface.
- 308 Circulating roller:**
This subclass is indented under subclass 307. Machines, the ink-roller traveling bodily in an endless path.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
294, and 304, for other circulating roller inkers.
- 309 Roller inker:**
This subclass is indented under subclass 306. Machines, there being a roller-inker not receiving ink from a plate.
- 310 Inker:**
This subclass is indented under subclass 297. Machines with means for applying ink to the printing-surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
301+, for inkers for oscillating bed machines.
- 311 Roller and plate:**
This subclass is indented under subclass 310. Machines comprising an ink-supply plate and a roller for transferring ink therefrom to the printing-surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
81, 195, 300, 302+, and 307, for other roller and plate inkers.
- 312 Traveling plate:**
This subclass is indented under subclass 311. Machines, the plate being bodily movable to carry ink to the roller.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
303, for other traveling plate inkers.
- 313 Circulating roller:**
This subclass is indented under subclass 311. Machines, the ink-roller traveling bodily in an endless path.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
294, 304, and 308, for other circulating roller inkers.
- 314 Roller:**
This subclass is indented under subclass 310. Machines comprising a roller not receiving ink from a plate.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
295, 305, and 309, for other roller inkers.
- 315 Fountain:**
This subclass is indented under subclass 314. Machines, the ink being supplied from a reservoir.
- 316 Reciprocating bed:**
This subclass is indented under subclass 287. Machines, the printing member moving in a straight path.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
164, 198+, 290, and 292+, for other reciprocating bed machines.
- SEE OR SEARCH CLASS:
100, Presses, subclass 229 for presses of the reciprocating platen type, not elsewhere provided for, having a transversely displaceable stationary platen.
- 317 Interrupter:**
This subclass is indented under subclass 316. Machines with means to prevent an impression.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
306+, for oscillating bed machines with interrupter.
- 318 Inker:**
This subclass is indented under subclass 316. Machines with means for applying ink to the printing-surface.
- 319 Roller and plate:**
This subclass is indented under subclass 318. Machines comprising an ink-supply plate and a roller for transferring ink therefrom to the printing-surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
293+, 300, 302+, 307+, and 311+, for other roller and plate machines.
- 320 Roller:**
This subclass is indented under subclass 318. Machines comprising a roller not receiving ink from a plate.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
164, 199, 290, and 295, for other roller inkers.
- 321 Fountain:**
This subclass is indented under subclass 320. Machines, the ink being supplied from a reservoir.
- 322 Interrupter:**
This subclass is indented under subclass 287. Machines with means to prevent an impression.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
299+, 306+, and 317, for other machines with interrupter.
- SEE OR SEARCH CLASS:
192, Clutches and Power-Stop Control, subclasses 126+ and 134 for machine parts susceptible of general application and functioning in a similar manner.
- 323 Roller inker:**
This subclass is indented under subclass 322. Machines, there being an ink-roller not supplied with ink from a plate.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
309, for oscillating machines having interrupter and roller inker means.
- 324 Inker:**
This subclass is indented under subclass 287. Machines with means for applying ink to the printing-surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
81, 82, 96, 97, 98, 164, 165, 195, 199, 290, 293, 295, 301+, 310+, 318+, and 323, for other inkers.
- 325 Roller and plate:**
This subclass is indented under subclass 324. Machines comprising an ink-supply plate and a roller for transferring ink therefrom to the printing-surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
81, 82, 195, 293+, 300, 302+, 307+, 311+, and 319, for other roller and plate inkers.
- 326 Roller with fountain:**
This subclass is indented under subclass 324. Machines comprising a roller which is supplied with ink from a reservoir.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
315, and 321, for other roller and fountain inkers.
- 327 PRINTING MEMBERS AND INKERS:**
This subclass is indented under the class definition. Devices limited to elements having printing-surfaces and supporting and holding means therefor, in combination with means for applying ink to said surfaces.
- 328 Rolling-contact printing member:**
This subclass is indented under subclass 327. Devices having curved surfaces capable of printing by rolling or rocking upon the work.
- (1) Note. The line between this class (101), subclasses 328+, and Class 401, Coating Implements With Material Supply, subclasses 208+, is as follows:
- Class 101, takes rolling applicator implements disclosed as pigment distributors and where the applicator surface produces a mark of other than general character. Marks of general character include (1) an indeterminate line or (2) a single continuous line of uniform width.
- Class 401, Coating Implements With Material Supply, takes hand-manipulable rolling contact applicators of general utility or disclosed as being pigment distributors producing a mark of general character.
- SEE OR SEARCH CLASS:
401, Coating Implements With Material Supply, subclasses 208+ for a hand-manipulable rolling-contact applicator with material supply; and see (1) Note, above.
- 329 Roller inker:**
This subclass is indented under subclass 328. Devices, the surface being inked by a roller which does not receive its ink-supply from a plate.
- 330 Fountain:**
This subclass is indented under subclass 329. Devices, the roller being supplied with ink from a reservoir.
- 331 Roller fountain:**
This subclass is indented under subclass 330. Devices, the reservoir supplying ink by rolling contact.
- 332 Ribbon inker:**
This subclass is indented under subclass 327. Devices, a strip of material provided with ink being placed over the printing-surface.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
96, 100, 107, 243, 244, 271, 273, 274, and 281, for other ribbon inkers.

333 Pad inker:

This subclass is indented under subclass 327. Devices, the inkers making contact with the printing-surfaces along a path intersecting the same.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

83, 97, 98, 101, 104+, and 108, for other pad inkers.

334 Tumbler bed:

This subclass is indented under subclass 333. Devices, the printing members being inverted to make contact with the ink-pads.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

104+, for other tumbler beds with pad inkers.

335 INKERS:

This subclass is indented under the class definition. Devices limited to attachments for printing apparatus for applying ink to the printing surface other than in multicolor work or stenciling.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

83, 97, 98, 101, 103, 104, 105, 108, 125, 202, 301, 310, 318, 324, 327, and 333, for other pad inkers.

SEE OR SEARCH CLASS:

100, Presses, subclasses 71+ for presses having means to add material to treat the pressed material, and not elsewhere provided for.

118, Coating Apparatus, for coating apparatus of general application, and especially subclasses 258+ for rotary applicators having means to apply coating material thereto.

336 Ribbon:

This subclass is indented under subclass 335. Devices, comprising strip of material provided with ink being placed over the printing-surface.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

96, 100, 102, 107, 243, 244, 273, 274, 281, and 332, for other ribbon inkers.

337 Roller and plate:

This subclass is indented under subclass 335. Devices, ink being held on a surface other than continuously cylindrical, from which it is transferred by a roller.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

81, 82, 203.1+, 300, 302+, 307+, 311+, 319, and 325, for other roller and plate inkers.

338 Bed-and-platen machines:

This subclass is indented under subclass 337. Machines peculiarly adapted for bed-and-platen printing-presses.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

81, 82, 195, 293+, 300, 302+, 307+, 311+, 319, and 325, for bed-and-platen machines having this type inker.

339 Traveling plate:

This subclass is indented under subclass 338. Machines, the ink-holding plate being bodily moved to carry the ink to the roller.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

303, and 312, for other inkers of this type.

340 Fountain:

This subclass is indented under subclass 338. Machines, the plate being supplied with ink from a reservoir.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

204, for other roller and plate inkers with fountain.

341 Interrupter:

This subclass is indented under subclass 340. Machines with means whereby to prevent inking other than a mere hand cut-off from the supply.

342 Interrupter:

This subclass is indented under subclass 338. Machines with means whereby to prevent inking.

SEE OR SEARCH THIS CLASS, SUBCLASS:

341, for other interrupters.

343 Traveling plate:

This subclass is indented under subclass 337. Machines, the ink-holding plate being bodily moved to carry the ink to the roller.

SEE OR SEARCH THIS CLASS, SUBCLASS:

339, for other traveling plate inkers.

344 Fountain:

This subclass is indented under subclass 343. Devices, the plate being supplied with ink from a reservoir.

345 Interrupter:

This subclass is indented under subclass 344. Devices with means to prevent inking other than a mere hand cut-off from the supply.

346 Interrupter:

This subclass is indented under subclass 343. Devices with means to prevent inking.

SEE OR SEARCH THIS CLASS, SUBCLASS:

345, for other interrupters.

347 Fountain:

This subclass is indented under subclass 337. Devices, the plate being supplied with ink from a reservoir.

SEE OR SEARCH THIS CLASS, SUBCLASS:

204, 340+, and 344+, for other roller and plate inkers with fountain.

348 Roller:

This subclass is indented under subclass 335. Machine including a cylindrical member adapted to roll over the printing surface of the printing member of a printer; to transfer printing fluid thereto, wherein the cylindrical mem-

ber receives ink from a supply other than a plate.

(1) Note, the roller may be called the "inking roller"

SEE OR SEARCH THIS CLASS, SUBCLASS:

160, 161+, 165, 199, 205+, 213, 295, 305, 309, 314+, 320+, 326, and 329+ for other roller inkers.

SEE OR SEARCH CLASS:

492, Roll or Roller, for a roll, per se, not elsewhere provided for, and see the notes thereunder.

349.1 Rotary machine:

This subclass is indented under subclass 348. Subject matter adapted for inking the printing member of a printing press, wherein the printing member turns about an axis.

SEE OR SEARCH THIS CLASS, SUBCLASS:

206, for similar inkers.

350.1 Having fountain to supply ink to roller:

This subclass is indented under subclass 349.1. Subject matter including a reservoir for storage of printing fluid and a passageway for supplying said printing fluid from the reservoir to the inking roller.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49, for an addressing machine with a similar inker.

207, for multicolor printer with a similar inker.

350.2 Selective feed path of ink to roller:

This subclass is indented under subclass 350.1. Subject matter including more than one passageway for supplying printing fluid to the inking roller, and including provision to allow choice of one or another passageway.

350.3 Vibrating:

This subclass is indented under subclass 350.1. Subject matter including an element of the passageway reciprocated to cause the printing fluid to be evenly distributed on the printing surface.

350.4 Variable speed roller in train of rollers supplying ink to inking roller:

This subclass is indented under subclass 350.1. Subject matter, wherein the passageway for supplying printing fluid is comprised of a series of rotary cylinders adapted to transfer printing fluid from one to the other to thereby move the printing fluid from the reservoir to the inking roller, and wherein the velocity of one of said cylinders can be changed.

350.5 Having excess ink return; i.e., recovery:

This subclass is indented under subclass 350.1. Subject matter including provision to pick up and retain extra, i.e., unused, printing fluid.

350.6 Having plural doctor means:

This subclass is indented under subclass 350.1. Subject matter including more than one element to scrape off excess printing fluid from the inking roller.

351.1 Having interrupter in ink supply:

This subclass is indented under subclass 350.1. Subject matter including means (other than a mere hand cut-off) to prevent the flow of printing fluid to the inking roller.

351.2 Spring biased:

This subclass is indented under subclass 351.1. Subject matter, wherein the means for preventing flow of printing fluid is yieldably urged by a resilient member into or out of functioning position.

351.3 Pivoted:

This subclass is indented under subclass 351.1. Subject matter, wherein the means to prevent flow of printing fluid comprises an element in the passageway that turns about an axis to move into or out of functioning position.

351.4 Hydraulically moved:

This subclass is indented under subclass 351.1. Subject matter, wherein the means to prevent flow of printing fluid comprises a device operated by fluid pressure.

351.5 Hydrophobic roller:

This subclass is indented under subclass 349.1. Subject matter, wherein the surface of one of the rotary cylinders of the passageway is treated to be water-repelling.

351.6 Segmented roller:

This subclass is indented under subclass 349.1. Subject matter, wherein one of the rotary cylinders of the passageway is comprised of several portions.

351.7 Covered:

This subclass is indented under subclass 349.1. Subject matter, wherein one of the rotary cylinders of the passageway has a sleeve thereabout.

351.8 Having means to spray ink on roller:

This subclass is indented under subclass 349.1. Subject matter including sparging means to transfer the printing fluid to the inking roller.

352.01 Having interrupter:

This subclass is indented under subclass 349.1. Subject matter including means to prevent the flow of printing fluid to the inking roller.

SEE OR SEARCH THIS CLASS, SUBCLASS:

209, and 351.1, for other roller inker, interrupter combinations.

352.02 Biased:

This subclass is indented under subclass 352.01. Subject matter, wherein an element of the means for preventing flow of printing fluid is urged into or out of functioning position.

352.03 Spring:

This subclass is indented under subclass 352.02. Subject matter, wherein the means for urging the element is an elastic device.

352.04 Pivoted:

This subclass is indented under subclass 352.01. Subject matter, wherein the means to prevent flow of printing fluid comprises an element in the passageway that turns about an axis to move into or out of functioning position.

352.05 Hydraulically moved:

This subclass is indented under subclass 352.01. Subject matter, wherein the means to prevent flow of printing fluid comprises a device operated by fluid pressure.

352.06 Vibrating:

This subclass is indented under subclass 349.1. Subject matter including an element of the passageway reciprocated to cause the printing fluid to be evenly distributed on the printing surface.

352.07 Biased:

This subclass is indented under subclass 349.1. Subject matter, wherein means are provided to urge in the movement of an element into or out of engagement with an adjacent element.

352.08 Spring:

This subclass is indented under subclass 352.07. Subject matter, wherein the means for urging the movement of the element is an elastic device.

352.09 Pivoted:

This subclass is indented under subclass 349.1. Subject matter, wherein an element turns about an axis to move into or out of engagement with an adjacent element.

352.1 Specific shape:

This subclass is indented under subclass 349.1. Subject matter, wherein the roller has a form for a purpose.

352.11 Specific surface:

This subclass is indented under subclass 349.1. Subject matter, wherein the peripheral portion of the roller has a peculiar area specially adapted for a purpose.

352.12 Pile or nap:

This subclass is indented under subclass 352.11. Subject matter, wherein the peripheral portion of the roller has externally exposed filament ends or loops of filament.

352.13 Plurality of projections or indentations:

This subclass is indented under subclass 352.11. Subject matter, wherein the peripheral portion of the roller has raised or lowered areas.

353 Bed-and-cylinder machine:

This subclass is indented under subclass 348. Machines peculiarly adapted for inking the printing member of a bed-and-cylinder press.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

160, and 161+, for similar inkers.

354 Traveling roller:

This subclass is indented under subclass 353. Machines, the roller being given a bodily movement along the printing-surface.

355 Fountain:

This subclass is indented under subclass 354. Machines, the roller supplied with ink from a reservoir.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

51, for other traveling roller inkers with fountain.

356 Fountain:

This subclass is indented under subclass 353. Machines, the roller supplied with ink from a reservoir.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

355, for fountain, traveling roller inkers.

357 Interrupter:

This subclass is indented under subclass 356. Machines with means whereby to prevent inking other than by a mere hand cut-off from the supply.

358 Interrupter:

This subclass is indented under subclass 353. Machines with means whereby to prevent inking.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

357, for other interrupters.

359 Bed-and-platen machine:

This subclass is indented under subclass 348. Machines peculiarly adapted for inking the printing member of a bed-and-platen press.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

164, 165, 199, 290, 295, 305, 309, 314+, 320+, 323, and 326, for other roller inkers for bed-and-platen machines.

- 360 Fountain:**
This subclass is indented under subclass 359. Machines, the roller supplied with ink from a reservoir.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
315, 321, and 326, for similar inkers.
- 361 Interrupter:**
This subclass is indented under subclass 360. Machines with means whereby to prevent inking other than a mere hand cut-off from the supply.
- 362 Interrupter:**
This subclass is indented under subclass 359. Machines with means whereby to prevent inking.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
361, for other interrupters.
- 363 Fountain:**
This subclass is indented under subclass 348. Machines, the roller supplied with ink from a reservoir.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
51, 208, 330+, 350.1+, 355, 356, 357, and 360+, for other roller inkers with fountain.
- 364 Fountains:**
This subclass is indented under subclass 335. Devices limited to form and structure of supply-reservoir.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
49, 51, 204, 207, 208, 210, 315, 321, 326, 330, 331, 340, 341, 344, 345, 347, 350.1, 351.1+, 355, 356, 357, 360, 361, and 363, for other fountains.
- 365 Multiple-point control:**
This subclass is indented under subclass 364. Devices with means for regulating the amount of ink discharged at different places.
- 366 Force discharge:**
This subclass is indented under subclass 364. Devices with means other than gravity for expelling the ink.
- 367 Roller-fountain:**
This subclass is indented under subclass 364. Devices, the reservoir rotating as the ink is delivered.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
148, and 331, for other roller fountains.
- 368 PRINTING MEMBERS:**
This subclass is indented under the class definition. Devices limited to elements bearing the printing-surfaces and supporting and holding means therefor.
- (1) Note. Where the printing member is claimed with no significant printing member structure but merely in terms of the composition or material of which it is composed, it will be classified in the appropriate composition or material class, even though there is no claim to the composition, per se. In this connection the following classes in the Search Notes referencing this (1) Note, should be considered.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
16, and 28+, for embossing or penetrating die members.
84+, 103+, and 109+, for selective or progressive printing members.
327+, for printing members with inkers.
- SEE OR SEARCH CLASS:
40, Card, Picture, or Sign Exhibiting, subclass 328 for labeled hand stamps. (See (1) Note above).
100, Presses, subclasses 295+ for platens and pressure surfaces, not elsewhere provided for.
106, Compositions: Coating or Plastic, (see (1) Note above).
148, Metal Treatment, particularly subclasses 400+ for materials which are products of processes of treating metals classifiable in Class 148, or for

- products distinguished only by the internal structure or characteristics of the metals, metallic compositions or alloys comprising such structures. (See (1) Note above).
- 420, Alloys or Metallic Compositions, appropriate subclasses for articles defined solely by their metal or alloy composition. (See (1) Note above).
- 520, Synthetic Resins or Natural Rubbers, appropriate subclasses for synthetic resins or natural rubbers and compositions thereof. (See (1) Note above).
- 369 Addressing plates:**
This subclass is indented under subclass 368. Devices peculiarly adapted for printing addresses.
- SEE OR SEARCH CLASS:
40, Card, Picture, or Sign Exhibiting, subclasses 642.02+ for a tab or display label holder, per se, which may be utilized for attachment to an address plate.
- 370 Type groove:**
This subclass is indented under subclass 369. Devices having one or more channels each adapted to hold a line of type.
- 371 Mail-cancelling stamps:**
This subclass is indented under subclass 368. Devices peculiarly adapted for disfiguring postage-stamps without mutilating the material thereof.
- 372 Special-designs forms:**
This subclass is indented under subclass 368. Devices having printing-sections peculiarly adapted to be assembled in different arrangements for producing particular effects.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
397, and 399, for special design face line bars and types.
- 373 Arrangeable face:**
This subclass is indented under subclass 372. Devices, the rearrangement being effected without withdrawing the sections from the holder.
- 374 Late insertion:**
This subclass is indented under subclass 368. Devices having a printing-section readily removable and replaceable by another without disturbing the remaining portion of the form.
- 375 Rolling contact:**
This subclass is indented under subclass 368. Devices having curved surfaces capable of printing by rolling or rocking upon the work.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
212+, for rolling contact machines.
328+, for rolling contact printing members with inkers.
- SEE OR SEARCH CLASS:
492, Roll or Roller, for a roll, per se, not elsewhere provided for, and see the notes thereunder.
- 376 Yielding surface:**
This subclass is indented under subclass 375. Devices so constructed as to be accommodated under pressure to curved or uneven surfaces
- SEE OR SEARCH CLASS:
428, Stock Material or Miscellaneous Articles, appropriate subclasses for a stock material product in the form of a single or plural layer web or sheet, and especially subclass 909 (a cross-reference art collection) for a printer's blanket.
- 377 Type groove:**
This subclass is indented under subclass 375. Devices having one or more channels each adapted to hold a line of type.
- 378 Plate securing means:**
This subclass is indented under subclass 375. Devices having means for clamping thin rigid curved printing-surfaces to curved bases.
- 379 Yielding surface:**
This subclass is indented under subclass 368. Devices so constructed as to be accommodated under pressure to curved or uneven surfaces.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
376, for rolling contact printing members with yielding surface.
- SEE OR SEARCH CLASS:
428, Stock Material or Miscellaneous Articles, appropriate subclasses for a stock material product in the form of a single or plural layer web or sheet, and especially subclass 909 (a cross-reference art collection) for a printer's blanket.
- 380 Type groove:**
This subclass is indented under subclass 379. Devices having one or more channels each adapted to hold a line of type.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
370, and 377, for other members with type groove.
- 381 Type groove:**
This subclass is indented under subclass 368. Devices having one or more channels each adapted to hold a line of type.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
370, 377, and 380, for other members with type groove.
- 382.1 Plate mountings:**
This subclass is indented under subclass 368. Devices with supports for thin flat rigid members having printing surfaces.
- 383 Securing means:**
This subclass is indented under subclass 382.1. Devices with means to clamp the plates to the bases.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
378, for other plate securing means.
415.1, for means of general application for holding a flexible sheet, even though named as a printing-plate stretched upon its support.
- 384 Modified plate:**
This subclass is indented under subclass 383. Devices, the plate being modified to engage with a particular holding means on the base.
- 385 Detachable hooks**
This subclass is indented under subclass 383. Devices comprising a plurality of small devices readily separable from both the plate and the base and adapted to be placed at any desired positions on the base.
- 386 Groove:**
This subclass is indented under subclass 385. Devices, the bases being channeled to receive the hooks.
- 387 Diagonal:**
This subclass is indented under subclass 386. Devices, the grooves extending across the base in lines oblique to the sides.
- 388 Shifting means:**
This subclass is indented under subclass 387. Devices with means for causing the hooks to move along the grooves.
- 389 Block:**
This subclass is indented under subclass 385. Devices, the hooks being carried by rectangular supporting members, which are in turn removably held in the base.
- 389.1 Magnetic or vacuum means to hold printing plates:**
This subclass is indented under subclass 382.1. Devices wherein the supports include structure which operates under the principle of magnetism or suction for supporting and firmly holding the printing surfaces.
- 390 Chase-securing means:**
This subclass is indented under subclass 368. Devices having means for securing the chase to the press-bed.
- 391 Chases:**
This subclass is indented under subclass 368. Devices having frame-like structures to be secured to the press-bed and adapted to hold a plurality of lines of assembled type.

- 392 Variable-size frame:**
This subclass is indented under subclass 391. Devices, the parts of the frame structure being adjustable.
- 393 Adjustable bars:**
This subclass is indented under subclass 391. Devices having means adapted to be placed in various positions within the frame for subdividing the type-holding chamber.
- 394 Locking means**
This subclass is indented under subclass 391. Devices having means attached to the chase for producing pressure upon the type to hold it in position therein.
- SEE OR SEARCH CLASS:
254, Implements or Apparatus for Applying Pushing or Pulling Force, subclasses 40+ for separate locking means, per se, adapted to secure type in the chase.
- 395 Plates:**
This subclass is indented under subclass 368. Printing members comprising thin sheets of material provided with printing-surfaces and incapable of being locked up in a chase unless mounted upon base members.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
453+, for planographic printing plates and see Notes thereto.
- 396 Line bars:**
This subclass is indented under subclass 368. Unitary structures of not more than one line composed of a plurality of printing characters.
- 397 Special-design face:**
This subclass is indented under subclass 396. Devices adapted to print particular effects.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
372+, and 399, for special design forms and types.
- 398 Types:**
This subclass is indented under subclass 368. Printing characters, any one of which is so related to others that they may be interchangeably employed in setting up a form.
- 399 Special-design face:**
This subclass is indented under subclass 398. Devices adapted for printing particular effects.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
372, and 397, for special design forms and line bars.
- 400 Rules and borders:**
This subclass is indented under subclass 368. Devices for producing marginal designs or straight lines.
- 401 Surfaces:**
This subclass is indented under subclass 368. Devices limited to improvements in the printing-face.
- 401.1 Blanks and processes:**
This subclass is indented under subclass 368. Devices consisting of printing or impression blanks, plates, surfaces, etc., and processes of making them.
- SEE OR SEARCH CLASS:
205, Electrolysis: Processes, Compositions Used Therein, and Methods of Preparing the Compositions, subclasses 69 and 127 for electrolytic methods of preparing printing members, blanks, plates, and surfaces.
- 401.2 Types or matrices:**
This subclass is indented under subclass 401.1. Processes of forming metal printing-surfaces other than by etching, casting, deposition, or mere embossing unaccompanied by special manipulation; also blanks for the same.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
401.5, for related apparatus.

SEE OR SEARCH CLASS:

205, Electrolysis: Processes, Compositions Used Therein, and Methods of Preparing the Compositions, subclass 69 for electrolytic methods of forming electrotypes.

401.3 Making ready:

This subclass is indented under subclass 401.2. Processes of manipulating printing-plates so that the desired pressure will be obtained at all portions of the design, also “make-readys” and processes of preparing and using them.

SEE OR SEARCH CLASS:

72, Metal Deforming, for the mere straightening of printing-plates.

156, Adhesive Bonding and Miscellaneous Chemical Manufacture, subclass 59 for a method of making a relief or intaglio representation of a three dimensional object.

205, Electrolysis: Processes, Compositions Used Therein, and Methods of Preparing the Compositions, subclasses 67 and 69 for reproduction of surfaces by electrodeposition.

401.4 Type bars:

This subclass is indented under subclass 401.1. Processes of forming type having a plurality of characters arranged in line on a single body member of a standard type-point thickness; also blanks for the same.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

401.6, for related apparatus.

401.5 Type or matrix forming machines:

This subclass is indented under subclass 368. Machines for forming metal printing-surfaces other than by etching, casting, deposition, or straight embossing unaccompanied by special manipulations.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

401.2+, for related processes.

401.6 Type bar:

This subclass is indented under subclass 401.5. Machines for forming type having a plurality of characters arranged in line on a single body member of a standard type-point thickness.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

401.4, for related processes.

402 Fillers:

This subclass is indented under subclass 368. Devices comprising means not having printing-surfaces adapted to be locked up in the form to maintain the printing elements in proper position.

403 Line spacers:

This subclass is indented under subclass 402. Devices adapted for insertion within a line between the type, usually for separating words.

404 Binding:

This subclass is indented under subclass 402. Devices for surrounding and holding the type-forms intact during transfer and adapted to be locked up in the chase.

405 Stamp handles:

This subclass is indented under subclass 368. Devices having means directly attached to free printing members whereby they may be grasped for use.

SEE OR SEARCH CLASS:

40, Card, Picture, or Sign Exhibiting, subclass 328 for labeled hand stamps.

406 Flexible connection:

This subclass is indented under subclass 405. Devices so attached as to permit angular movement between the handle and printing member during impression.

407.1 WORK SUPPORTING MEMBERS:

This subclass is indented under the class definition. Members having means for supporting the material being printed during the act of impression.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

401.3, for “make-readys”.

- 408 Grippers:**
This subclass is indented under subclass 407.1. Grippers having automatic means for grasping the work.
- 409 Cylinders:**
This subclass is indented under subclass 408. Grippers carried by a cylinder.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
246, for rotary machines having gripper cylinders.
- 410 Shiftable:**
This subclass is indented under subclass 409. Grippers being circumferentially movable with relation to the cylinder.
- 411 Gripper-attached tumble:**
This subclass is indented under subclass 409. Gripper carrying means adapted to be operated in opposite directions by separate obstructions in the path of travel.
- 412 No operating mechanism:**
This subclass is indented under subclass 409. Grippers there being no means included for operating the gripper-jaws.
- 413 Tympan gauges:**
This subclass is indented under subclass 407.1. Devices having means mounted upon the work-supporting members to position the work preparatory to printing.
- 414 Automatic movement:**
This subclass is indented under subclass 413. Devices being actuated by the operation of the machine.
- 415 Surface secured:**
This subclass is indented under subclass 413. Devices adapted to be attached directly to the sheet which underlies the work.
- 415.1 FLEXIBLE-SHEET-SECURING DEVICES:**
This subclass is indented under the class definition. Means for attaching to their supports and stretching the flexible sheets employed in printing operations.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
125, 126, 131, 131.5, 132, 132.5, 133, 378, 407.1, and 418, for related securing means.
- SEE OR SEARCH CLASS:
34, Drying and Gas or Vapor Contact With Solids, subclasses 95+ for means for attaching a sheet of blotting material to a backing which, in indented subclasses 95.1+, is part of a handle.
346, Recorders, appropriate subclasses.
400, Typewriting Machines, subclasses 23+ and 648+ for typewriter plates.
451, Abrading, subclasses 352, 353, 458, 496+, and 504+ for an abrasive sheet securing device.
492, Roll or Roller, subclasses 22+ for a roll per se, not elsewhere provided for, having means to grip or impale the edge of a sheet.
- 416.1 ANTISMUT DEVICES:**
This subclass is indented under the class definition. Means to prevent the improper deposition of ink or the rubbing of the ink on the work.
- (1) Note. Combined processes and apparatus for printing and drying are in this class (101), appropriate subclasses, particularly this subclasses (416+).
- SEE OR SEARCH CLASS:
34, Drying and Gas or Vapor Contact With Solids, appropriate subclasses for processes and apparatus for drying freshly printed matter.
- 417 Web:**
This subclass is indented under subclass 416.1. Devices employing strips of continuous or indefinite length which contact the printed matter. The web may be either absorbent or nonabsorbent.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
419, for similar organizations using sheets instead of strips.

- SEE OR SEARCH CLASS:
- 34, Drying and Gas or Vapor Contact With Solids, subclasses 94 and 306 for such processes and devices with additional steps or means to cause drying such as the step or means to feed a drying fluid.
- 242, Winding, Tensioning, or Guiding, subclasses 520+ for convolute winding or subclasses 550+ for unwinding in general use.
- 418 Cylinder-carried reels:**
This subclass is indented under subclass 417. Devices, the ends of the strip being secured to reels mounted within a cylinder, over the periphery of which the strip passes.
- 419 Sheet:**
This subclass is indented under subclass 416.1. Devices in which separate pieces of sheet material are applied to the printed matter. Such sheet material may be absorbent or nonabsorbent.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
417+, for similar organizations using strips.
- SEE OR SEARCH CLASS:
- 34, Drying and Gas or Vapor Contact With Solids, subclasses 94 and 306 for such processes and devices with additional steps or means to cause drying, such as the step or means to feed a drying fluid.
- 270, Sheet-Material Associating, subclasses 58.01+ for sheet associating.
- 271, Sheet Feeding or Delivering, for pertinent subclass(es) as determined by schedule review.
- 420 Contact preventers:**
This subclass is indented under subclass 416.1. Devices operating to keep the freshly-printed work from touching undesired parts of the apparatus.
- 421 Friskets:**
This subclass is indented under subclass 420. Devices in which shields having openings therein are placed over the work, with the portions of the work which are to receive the impressions being in register with openings.
- 422 Ink repellent:**
This subclass is indented under subclass 416.1. Devices dependent on use of surfaces to which the ink will not adhere.
- SEE OR SEARCH CLASS:
106, Compositions: Coating or Plastic, subclass 2 for ink repellent compositions.
- 423 Cleaners:**
This subclass is indented under subclass 416.1. Devices adapted to remove from portions of the apparatus ink received from the work.
- 424 With cleaning composition:**
This subclass is indented under subclass 423. Devices employing detergents or analogous substances to facilitate the cleaning.
- 424.1 Drying with fluid (air) or by heating:**
This subclass is indented under subclass 416.1. Means wherein air or heat is applied to the work so that the ink will be dried, this preventing smutting.
- 424.2 Anti-offset material application:**
This subclass is indented under subclass 416.1. Means wherein an additional material is applied to the work to set the ink thereon preventing its smearing or smutting.
- 425 CLEANING ATTACHMENTS:**
This subclass is indented under the class definition. Attachments for printing apparatus for removing undesirable matter from the work or from parts of the apparatus.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
423+, for means for removing from the apparatus ink received from the work.
- 450.1 Processes of lithographic printing:**
This subclass is indented under subclass 130. Process of printing utilizing a plate or surface which has first areas of configuration or printing to be reproduced, which first areas accept ink to be transferred to a sheet or other material, and which plate or surface has second areas that are not to be reproduced, which sec-

ond areas reject ink so as to prevent transfer of ink therefrom to said sheet or other material.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 32, for processes of embossing or penetrating.
- 129, for processes of stencilling.
- 170, for processes of printing by intaglio.
- 211, for processes of printing by use of multicolor.
- 401.1+, for printing members, processes, and blanks.
- 483, for processes of printing in general.

451 With application of ink repellent or ink receptive liquid:

This subclass is indented under subclass 450.1. Process including the step of applying a liquid to the plate or surface, said liquid depending upon the mutual immiscibility of water and ink or aliphatic hydrocarbons and nonoily or nonoleoresinous inks for its rejection or acceptance by said areas.

- (1) Note. The liquid applied to the plate may contain both the ink and the ink-repellent material or, two fluids may be applied at intervals to supply the ink or ink-repellent material in separate applications thereof.
- (2) Note. Fluids of this type are usually referred to as dampening or fountain solutions.

452 Non-aqueous:

This subclass is indented under subclass 451. Process wherein the liquid applied to the plate or surface does not contain water.

453 Lithographic printing plates:

This subclass is indented under subclass 130. Articles or devices for printing characterized by having a surface which has a first area of configuration or printing to be reproduced, which first area receives ink to be transferred to other materials, and second areas on said surface which are not to be reproduced, which second areas are not receptive to ink thus failing to transfer ink therefrom to said other material.

- (1) Note. The ink-repellent and ink-receptive surface portions are usually in the form of coatings or impregnations which are distinguished as being nonprinting portions (ink repellent) and printing portions (ink-receptive) carried upon a suitable base or support.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 395, for a printing plate having surface characteristics other than planographic.
- 401.1, for a printing blank not restricted to planographic printing.

SEE OR SEARCH CLASS:

- 428, Stock Material or Miscellaneous Articles, appropriate subclasses for a stock material product in the form of a single or plural layer web or sheet, and especially subclasses 195+ for such a product including a discontinuous or differential coating (e.g., design or indicia to be printed) and subclasses 615+ for a product having a metal bonded to a metal, or plural metal layers.

454 Including metal support having printing or non-printing surface:

This subclass is indented under subclass 453. Articles or devices wherein the ink-repellent or ink-receptive surface portions are in the form of an impregnation or layer carried upon a base which includes metal.

- (1) Note. The metal support must be the ultimate carrier for the layer or coating, and does not have to be contiguous therewith.

455 Surface contains silica or glass:

This subclass is indented under subclass 454. Articles or devices in which the ink-repellent or ink-receptive layer or impregnation includes (A) fused silica, (B) a mixture of fused silica and alkali or alkaline silicates, or (C) the salts of the silicic acids, commonly known as glass.

456 Surface contains light reacted material:

This subclass is indented under subclass 454. Articles or devices in which the ink-repellent or ink-receptive layer or impregnation includes a composition or compound which solidifies upon being exposed to a light source.

SEE OR SEARCH THIS CLASS, SUBCLASS:

- 467, for processes of making lithographic plates ink-receptive by use of light.
- 471, for processes of making or using copy material by exposure to light.

SEE OR SEARCH CLASS:

- 118, Coating Apparatus, subclasses 621+, for means to apply electrical and/or radiant energy to work and/or coating material.
- 427, Coating Processes, subclasses 457+ for processes of coating wherein electrical, magnetic or wave energy is utilized.

457 Surface contains resin:

This subclass is indented under subclass 454. Articles or devices in which the ink-repellent or ink-receptive layer or impregnation includes either a naturally occurring gum or resin, or a synthetic resin, that is, complex organic compounds produced from ingredients which are nonresinous in themselves, and which compounds simulate natural resins in that they are usually adapted for forming films or for use as binders in plastic compositions.

SEE OR SEARCH CLASS:

- 520, Synthetic Resins or Natural Rubbers, for synthetic resins or natural rubber and compositions thereof.

458 Surface contains metal:

This subclass is indented under subclass 454. Articles in which the ink-repellent or ink-receptive layer is a metal.

- (1) Note. The metal layer of this subclass is one which is additional to the metal base support.

SEE OR SEARCH CLASS:

- 428, Stock Material or Miscellaneous Articles, subclasses 544+ for stock materials, e.g., of indefinite length, which are all metal or have adjacent metal components.

459 Aluminum, copper or zinc:

This subclass is indented under subclass 458. Articles in which said ink-repellent or ink-receptive layers or impregnation contains aluminum, copper, or zinc or alloys thereof.

460 Including paper or cellulosic support having printing or non-printing surface:

This subclass is indented under subclass 453. Articles wherein the ink-repellent or ink-receptive surface portions are in the form of an impregnation of, or layer carried upon, a base of carbohydrate material derived from the structural material of plant life.

- (1) Note. Cellulosic is inclusive of lignocellulose, cellulose, and chemically modified forms of cellulose as cellophane, pyroxylin, viscose, and rayon.
- (2) Note. Where the support itself is a cellulosic product which is a resin and is ink-repellent or ink-receptive the patent would be placed in the appropriate subclass indented below.

461 Surface contains protein or derivative:

This subclass is indented under subclass 460. Articles in which the ink-repellent or ink-receptive layer or impregnation includes a complex nitrogenous substance composed mainly of an a-amino-acid residue joined by peptide linkages, or compounds or compositions hydrolized thereto.

462 Surface contains resin:

This subclass is indented under subclass 460. Articles in which the ink-repellent or ink-receptive layer or impregnation includes either a naturally occurring gum or resin, or a synthetic resin, that is, complex organic compounds produced from ingredients which are nonresinous in themselves, and which compounds simulate natural resins in that they are usually adapted for forming films or for use as binders in plastic compositions.

SEE OR SEARCH CLASS:

520, Synthetic Resins or Natural Rubbers, for synthetic resins or natural rubbers and compositions thereof.

463.1 Lithographic plate making, and processes of making or using copy elements, and elements, per se:

This subclass is indented under subclass 130. Process including (a) the manufacture of a printing plate having an ink-repellent portion and an ink-receptive portion thereon, or (b) the process of manufacture or use of a master sheet having an ink-design thereon, said design being capable of transfer to a plurality of sheets or surfaces to be printed without re-inking between successive transfers, or (c) such master sheet material, per se.

SEE OR SEARCH CLASS:

106, Compositions: Coating or Plastic, particularly subclass 2 for coating repellent compositions; and subclass 14.5 for hectographic or copying compositions.

205, Electrolysis: Processes, Compositions Used Therein, and Methods of Preparing the Compositions, particularly subclass 127 for processes of making printing members involving electrolytic steps.

216, Etching a Substrate: Processes, subclass 210 for the manufacturing of a printing roll using etching.

427, Coating Processes, subclass 144 for processes of forming a uniform coating on a substrate disclosed as useful in making copying surfaces. See the notes in subclass 144 for a more detailed line between that class and Class 101.

430, Radiation Imagery Chemistry: Process, Composition, or Product Thereof, subclasses 49, 204, and 300+ for process of making printing plates.

464 Films to film inhibition:

This subclass is indented under subclass 463.1. Subject matter, having a marking material absorbed in a master pellicle transferred to another pellicle by absorption through contact between pellicles.

(1) Note. Patents in this subclass usually disclose the duplication of color photographs by dye migration.

SEE OR SEARCH THIS CLASS, SUBCLASS:

211, for other multicolor printing processes.

468, for copying processes.

473, for copying sheets.

SEE OR SEARCH CLASS:

8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, appropriate subclasses for dyeing processes of general application.

352, Optics: Motion Pictures, subclasses 232+ and especially subclass 234 for motion picture carriers.

430, Radiation Imagery Chemistry: Process, Composition, or Product Thereof, subclasses 200+ for film to film imbibition.

465 Making plate surface portions ink repellent or ink receptive:

This subclass is indented under subclass 463.1. Process of manufacture wherein a printing surface is treated to modify a selected (particular) surface portion thereof to cause it to either (A) repel water and aliphatic hydrocarbons; (B) receive inks whether greasy, nonoily or nonoleoresinous; or (C) both to repel water and aliphatic hydrocarbons and to receive greasy, nonoily or nonoleoresinous inks.

(1) Note. This subclass and its indents are restricted to patents for making printing plates which depend upon re-inking to make multiple copies therefrom.

SEE OR SEARCH THIS CLASS, SUBCLASS:

468, for methods of printing without re-inking to produce multiple copies.

466 Ink receptive:

This subclass is indented under subclass 465. Process of manufacture wherein a plate surface portion has been treated to become receptive to inks whether greasy, nonoily or nonoleoresinous.

467 By use of radiant energy or heat:

This subclass is indented under subclass 466. Process wherein a source of caloric energy effects a modification of the plate surface portion.

- (1) Note. Patents directed to heating the surface merely to dry, are not proper subject matter for this subclass, but will be found in various subclasses, based on other characteristics.
- (2) Note. Caloric energy may be produced by electricity, light, or any other means which elevates the temperature to effect a modification of the plate surface.

SEE OR SEARCH CLASS:

118, Coating Apparatus, subclasses 621+ for means to apply electrical or radiant energy to work or coating material.

468 Copying:

This subclass is indented under subclass 463.1. Process including (A) the manufacture or use of a master sheet having an ink design or printing thereon, said design being capable of being transferred to a plurality of sheets or surfaces to be printed, without re-inking between successive transfers, or (B) such master sheet material, per se.

- (1) Note. Patents directed to hectos:graphic printing steps are proper subject matter for this and indented subclasses.

SEE OR SEARCH THIS CLASS, SUBCLASS:

131+, for copying apparatus.

469 Including color formation or enhancement:

This subclass is indented under subclass 468. Process of manufacture or use in which a particular hue or tint is given to the ink design or printing by a chemical reaction or by the addition of a mordant to a dye component of the ink, such mordant serving to give the ink a more permanent characteristic.

SEE OR SEARCH THIS CLASS, SUBCLASS:

464, for color formation or mordanting during imbibition.

SEE OR SEARCH CLASS:

8, Bleaching and Dyeing; Fluid Treatment and Chemical Modification of Textiles and Fibers, subclasses 400 through 696 for dye compositions and methods of dyeing.

430, Radiation Imagery Chemistry: Process, Composition, or Product Thereof, subclasses 539+ for color.

470 Utilizing radiant energy or heat:

This subclass is indented under subclass 468. Process of manufacture or use in which the master sheet is made by the application of caloric energy.

- (1) Note. For additional search notes on the use of radiant energy, see search notes under subclass 467.

SEE OR SEARCH THIS CLASS, SUBCLASS:

467, for processes utilizing radiant energy or heat in making lithos:graphic plates.

471 Light:

This subclass is indented under subclass 470. Process of manufacture or use in which the caloric energy is in the form of electromagnetic wave energy.

- (1) Note. The term electromagnetic wave energy includes visible and invisible light radiation such as ordinary infrared, and ultraviolet radiations.

472 Utilizing solvent:

This subclass is indented under subclass 468. Process of manufacture or use in which the ink design or printing is contacted by a substance, usually liquid, which causes part of the ink in the design to dissolve and transfer to the surface being made or printed.

- (1) Note. This is the proper locus for patents directed to application of a solvent to a copy sheet, or having a solvent contained

- in the reproducing material, or a solvent contained in a copy sheet.
- 473 Elements per se:**
This subclass is indented under subclass 468. Articles or manufacture comprising copy master sheets, or copy elements.
- SEE OR SEARCH CLASS:
428, Stock Material or Miscellaneous Articles, appropriate subclasses for a stock material product in the form of a single or plural layer web or sheet and embodying a hectos:graphic or copying surface; not especially subclasses 195+ for such a product comprising a discontinuous or differential coating, impregnation or bond, and subclass 914 (a cross-reference art collection) for a transfer or decalcomania product.
- 474 Work held on flat surface:**
This subclass is indented under subclass 407.1. Means wherein the support for holding the material being printed during the impression is a planar surface.
- 475 Work in rolling contact with printing plate:**
This subclass is indented under subclass 407.1. Means wherein the support for the material being printed during the act of impression is a support adapted to hold the work as it is rolled into contact with the printing plate.
- 476 PRINTING ON STACKED ARTICLES:**
This subclass is indented under the class definition. Means for accommodating one item piled on top of one or more other such items at a printing station.
- 477 PRINT PLATE FEEDING OR DELIVERING:**
This subclass is indented under the class definition. Means for conveying an indicia forming member to or from a printing station so that a new printing surface may be used.
- 478 ERASABLE PLATE:**
This subclass is indented under the class definition. Means for the removal, or modification of normally fixed indicia on a printing member.
- 479 ASSEMBLY OR DISASSEMBLY FEATURE:**
This subclass is indented under the class definition. Means which allows for the ready removal or replacement of portions of a printing means for purposed of renewal or repair.
- (1) Note. The renewal or repair must be incidental to the printing operation.
- SEE OR SEARCH CLASS:
29, Metal Working, subclasses 700+ for assembly or disassembly of printing presses which are not incidental to press operation (see Note above).
- 480 PRESS PART OR ATTACHMENT:**
This subclass is indented under the class definition. Device which is a subcombination of, or an addition to, a printing press and performs some function in printing.
- 481 LAYOUT OR REGISTRATION:**
This subclass is indented under the class definition. Means to position either a printing surface or a print receptor for alignment purposes.
- SEE OR SEARCH THIS CLASS, SUBCLASS:
485+, for a process involving positioning or alignment of a printing means or a print receptor.
Dig. 12, for a collection of art relating to the registration or alignment of a print plate on a print press structure.
- SEE OR SEARCH CLASS:
33, Geometrical Instruments, subclasses 614+ if no printing apparatus claimed.
- 482 TAB:**
This subclass is indented under the class definition. Printing means which are provided with a tag or ear used for identification or location purposes.
- 483 PROCESSES:**
This subclass is indented under the class definition. Processes of printing in general.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 17, and 32, for embossing or penetrating processes.
- 34, for processes of transferring preparatory designs.
- 129, for stenciling processes.
- 170, for intaglio processes.
- 211, for multicolor processes.

SEE OR SEARCH CLASS:

- 8, Bleaching and Dyeing: Fluid Treatment and Chemical Modification of Textiles and Fibers, subclasses 467+, for diffusion transfer dyeing processes.
- 205, Electrolysis: Processes, Compositions Used Therein, and Methods of Preparing the Compositions, subclasses 52+ for electrolytic marking or a composition therefor (e.g., electrolytic printing, etc.).
- 264, Plastic and Nonmetallic Article Shaping or Treating: Processes, subclass 132 for a step of applying an indicia or a design, e.g., printing, to a workpiece out of the mold, when combined with a molding or shaping operation.
- 346, Recorders, subclasses 2+ for phenomenal apparatus and processes recording.
- 347, Incremental Printing of Symbolic Information, subclasses 1+ for processes and apparatus for conveying information by selectively creating on a medium a visibly distinguishable symbol or mark composed of a plurality of portions.

484 **Condition responsive:**

This subclass is indented under subclass 483. Process wherein a process step is performed in response to a sensed changing or abnormal condition or circumstance.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- Dig. 24, for ink control.
- Dig. 26, for blade positioning.

485 **Position or alignment:**

This subclass is indented under subclass 483. Process wherein provision is made for adjustment of position or registration between parts, images, impressions or products.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- 248, and 286, for cylinder registration.

SEE OR SEARCH CLASS:

- 33, Geometrical Instruments, subclasses 614+ if no printing apparatus detail claimed.

486 **Of print means:**

This subclass is indented under subclass 485. Process wherein the position adjustment or registration includes positioning the means used to form the image.

SEE OR SEARCH THIS CLASS, SUB-CLASS:

- Dig. 12, for a collection of art relating to the registering of printing means.

487 **With heating or cooling:**

This subclass is indented under subclass 483. Process wherein a temperature modifying treatment is provided for the printing apparatus or the materials used or worked on.

SEE OR SEARCH CLASS:

- 346, Recorders, subclass 76.1 for phenomenal recording using thermal apparatus and processes.
- 347, Incremental Printing of Symbolic Information, subclasses 171+ for thermal apparatus and processes for printing incremental symbolic information, especially subclasses 185+ for preheating and subclasses 223 for cooling device.

488 **Of print medium:**

This subclass is indented under subclass 487. Process wherein an image formed by printing is subjected to a temperature modifying treatment after transfer to a receptor to modify or fix the image.

- (1) Note. This type of step is usually performed to drive off solvent or cure ink.

- SEE OR SEARCH THIS CLASS, SUB-CLASS:
424.1, for drying by heating.
- SEE OR SEARCH CLASS:
34, Drying and Gas or Vapor Contact With Solids, for drying, per se.
- 489 Electric or magnetic transfer:**
This subclass is indented under subclass 483. Process wherein an impression printing step is supplemented or assisted by using a difference in electrostatic or magnetic attraction.
- SEE OR SEARCH CLASS:
118, Coating Apparatus, subclasses 621+ for electrostatic projection or attraction of material to work.
346, Recorders, subclass 74.2 for nonvisible images magnetically transferred to a recording media.
347, Incremental Printing of Symbolic Information, subclasses 111+ for apparatus and processes including means to apply electricity to a medium for recording an image and especially subclasses 112+ for apparatus and processes using electrostatic charge as the applied electricity.
399, Electrophotography, subclasses 130+ for image formation, subclass 154 for image formation with transfer of latent image, and subclasses 297+ for transfer of toner image, per se.
427, Coating Processes, subclasses 12+ for processes of electrostatic or magnetic projection of material to work.
430, Radiation Imagery Chemistry: Process, Composition, or Product Thereof, subclasses 31+ for processes, compositions and products used in electromagnetic radiation image formation for printing.
- 490 Plural impressions on a single article:**
This subclass is indented under subclass 483. Process wherein a print receptor is subjected to two or more separate impressions or two or more separate impressions are made to form a single indicia.
- 491 Specific ink:**
This subclass is indented under subclass 483. Process wherein a particular printing step is performed because of a peculiar characteristic of the ink.
- SEE OR SEARCH CLASS:
106, Compositions: Coating or Plastic, subclasses 31.13+ for specific ink compositions.
- 492 Transfer or offset:**
This subclass is indented under subclass 483. Process wherein a printing step uses one or more intermediate surfaces between an image donor or formation surface and a final image receptor.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
137, 142+, 154, 177, 217+, and 251+, for transfer or offset apparatus.
468+, for copying type transfer.
- SEE OR SEARCH CLASS:
156, Adhesive Bonding and Miscellaneous Chemical Manufacture, subclasses 230+ for decal type transfer.
- 493 Resilient surface:**
This subclass is indented under subclass 483. Process wherein a donor, receptor, or support therefor is provided with a yielding outer portion.
- SEE OR SEARCH THIS CLASS, SUB-CLASS:
376, for yielding surface rollers.
379, for a yielding surface.
- 494 MISCELLANEOUS:**
This subclass is indented under the class definition. Means for performing operations falling in this class not provided for in other subclasses.

FOREIGN ART COLLECTIONS

The definitions for FOR 100-FOR 103 below correspond to the definitions of the abolished subclasses under Class 101 from which these collections were formed. See the Foreign Art Collection schedule for specific correspondences. [Note: The titles and defini-

tions for indented art collections include all the details of the one(s) that are hierarchically superior.]

FOR 100 Rotary machine (101/349):

Foreign art collection peculiarly adapted for inking the printing member of a rotary press.

FOR 101 Fountain (101/350):

Foreign art collection being supplied with ink from a reservoir.

FOR 102 Interrupter (101/351):

Foreign art collection with means to prevent inking other than a mere hand cut-off from the supply.

FOR 103 Interrupter (101/352):

Foreign art collection with means to prevent inking.

END